CONTENTS OF VOLUME I.

No. 1.—NOVEMBER, 1895.

No. 2.—JANUARY, 1896.

No. 3.—MARCH, 1896.

No. 4.—MAY, 1896.

No. 5.—JULY, 1896.

No. 6.—SEPTEMBER, 1896.

No. 7.—NOVEMBER, 1896.

INDEX.

BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 1—NOVEMBER, 1895.

ISSUED EVERY OTHER MONTH.

EDITED BY

CARROLL D. WRIGHT,
COMMISSIONER.

OREN W. WEAVER,
CHIEF CLERK.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1895.

CONTENTS.

BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 1. WASHINGTON. NOVEMBER, 1895.

INTRODUCTION.

During the last session of the Fifty-third Congress Hon. Lawrence E. McGann, chairman of the Committee on Labor of the House of Representatives, introduced a bill (H. R. 8713) providing for the publication of the Bulletin of the Department of Labor. This bill was referred to the Committee on Labor January 29, 1895, and February 1 the committee made the following report, which was committed to the Committee of the Whole House on the state of the Union:

The Committee on Labor, to whom was referred House bill 8713, have had the same under consideration, and beg leave to report that the bill provides that the Commissioner of Labor shall publish a bulletin of the Department of Labor, at intervals not to exceed two months, containing current facts as to the condition of labor in this and other countries, condensations of state and foreign labor reports, facts as to the condition of employment, and such other facts as may be deemed of value to the industrial interests of the country.

The following communication from the Commissioner of Labor, Hon. Carroll D. Wright, sets forth potent arguments in favor of the passage of the bill:

DEPARTMENT OF LABOR,
Washington, D. C., February 1, 1895.

MY DEAR SIR: I have the honor to acknowledge the receipt of your letter of yesterday, inclosing a copy of bill (H. R. 8713) providing for the publication of the Bulletin of the Department of Labor, with suggestion that you would like my views thereon.

In response I have to say that I have very carefully examined, not only the bill, which seems to me to be fully adequate for the purpose for which it is intended, but the plan for which it provides. The Department of Labor is authorized by its organic law to publish an annual report, and also such special reports as may be deemed best, either by the Commissioner of Labor or in response to resolutions of either branch of Congress or a request of the President, and it has in the past fully complied with these provisions, sending to Congress annually a report relating to some specific and extensive investigation, and also various special reports not requiring so extensive work as the annual reports.

I suppose the Department would have the right to make a special report at regular intervals, but in order to do so it would need a larger appropriation than that now made for its use. Your bill, therefore, supplies this lack, and further, it would enable the printing office to bring out a regular bulletin without the necessity of delay in sending it to Congress. After very careful consideration of the whole subject I therefore feel like indorsing fully the purpose of the bill, especially as foreign governments are now doing precisely what your bill aims to accomplish. The English

department of labor, which was established only recently, is now publishing, very successfully and with great acceptance to the industrial interests of the country, a labor gazette. The French department of labor does the same thing, and so, too, does that of New Zealand, and now the Russian government, which has recently established a department of labor, is publishing a gazette. It would seem right, therefore, that the United States, which has been the pioneer of labor departments in the world, should publish a bulletin.

This would have been done before, I presume, had it not been for the suggestion that such bulletins should contain information relative to the lack of labor in different parts of the country. I believe that all now agree that such announcements from an official source would do more harm than good, and therefore the movement has never taken shape; but the publication contemplated by your bill avoids this particular, and to my mind objectionable, feature of a bulletin, and with this objection removed I think it would be greatly for the interest of the industries of this country that such a bulletin should be established.

Should you look for precedents in our own government, you will find them in the Department of Agriculture, the Geological Survey, and the Bureau of Education. All of these offices, while not publishing bulletins at regular intervals, publish them quite frequently, and they are of very great use.

I think our Department is now so constituted that it could bring out at least bimonthly the bulletin contemplated by your bill, and fill its pages with most useful facts relative to the condition of labor in this and other countries—facts which do not naturally and would not generally come within the scope of an annual report. Here would be the great use and great advantage of the bulletin. The annual reports must necessarily be the results of patient and laborious investigation. The bulletins would contain more fragmentary matter, but yet of vital importance. As I read your bill, it is not contemplated that a bulletin should contain theoretical matter or introduce discussions on debatable questions, nor should it become the organ of any propaganda, but its whole function is to be confined to the collection and publication of current but important facts.

The increased expense would be so small that I should not suppose that would stand in the way of the passage of the bill. I am very glad to see that your committee has reported it favorably, and I hope it will secure the favorable action of Congress.

I am, very respectfully, CARROLL D. WRIGHT,
Commissioner.

Hon. LAWRENCE E. MCGANN, M. C.,
Chairman Committee on Labor, House of Representatives.

Your committee therefore recommend that the bill be passed.

The bill which Mr. McGann introduced, and which the committee reported favorably, provided for a bulletin at intervals not to exceed two months and not to exceed 100 octavo pages; and to contain current facts as to the condition of labor in this and other countries, condensations of state and foreign labor reports, facts as to conditions of employment, and such other facts as may be deemed of value to the industrial interests of the country. This bill passed the House of Representatives February 26, 1895, and was favorably reported in the Senate, but instead of its passing the Senate as a bill, it was incorporated, in an abbreviated form, as a provision in the act making the appropriations for the Department of Labor, as follows:

The Commissioner of Labor is hereby authorized to prepare and publish a bulletin of the Department of Labor, as to the condition of labor in this and other countries, condensations of state and foreign labor reports, facts as to conditions of employment, and such other facts as may be deemed of value to the industrial interests of the country, and there shall be printed one edition of not exceeding ten thousand copies of each issue of said bulletin for distribution by the Department of Labor.

This amendment was accepted by the House and the bill containing it was approved March 2, 1895. It is under this provision of the legis-

lative appropriation act that the Bulletin of the Department of Labor is issued.

It will be noticed that the authorization under the legislative appropriation act is somewhat different from that contained in the bill as it passed the House. In that bill there were limitations as to issue and intervals of issue, but the law as it stands contains no limitations nor restrictions either as to the size of the bulletin or the intervals at which it shall be published, the only condition being that not more than 10,000 copies of each issue of the bulletin shall be printed. Notwithstanding this broad and unrestricted authorization, we feel it right and just to conform, in a general way, to the terms embodied in the House bill. We shall therefore undertake to limit the size of the bulletin to about 100 octavo pages and, at present, to issue it every other month. The principles which will guide us in the preparation of the bulletin are fully indicated in the letter to the chairman of the House Committee on Labor just quoted. We need not, therefore, make any restatement on that point.

Our plan now is to have at least five regular departments of information in each issue, as follows:

First. A liberal portion of each issue to be occupied with the results of original investigations conducted by the Department or its agents.

Second. A digest of foreign labor reports.

Third. A digest of state labor reports.

Fourth. The reproduction, immediately after their passage, of new laws that affect the interests of the working people whenever such are enacted by state legislatures or Congress; also the reproduction of the decisions of courts interpreting labor laws or passing upon any subject which involves the relations of employer and employee; attention likewise will be called to any other matters pertaining to law which may be of concern and value to the industrial interests of the country and which might not be obtained without expense or trouble from other sources.

Fifth. A miscellaneous department, in which brief statements of fact or paragraphs of interest may find a place.

In conducting special investigations, the results of which are to appear in the bulletin, it may be sometimes that such results will take up the whole of the bulletin. The endeavor, however, will be to preserve the regular departments, as a rule, as just stated, departing therefrom only when the importance of the facts to be published warrants such departure.

The bulletin will not be devoted in any way to controversial matters, the enunciation of theories, nor used in any sense for propagandism. We shall undertake to present all the matters in an attractive and straightforward way, and while statistical tables will have to be employed constantly, the aim will still be to give proper space to reading matter. There are very many questions constantly coming up on

which information can not be secured except by inquiry at original sources. Such questions we hope to be able to consider whenever they arise, and to give the results a place in the bulletin.

We shall not attempt in any way to compete with the press, but in general our aim will be to furnish to the public facts and information relating to industrial affairs which can not readily be secured in any other way. So, merely ephemeral matters will not be given a place in the pages of the bulletin, but those matters which have a more or less permanent value and which will take their place in the industrial history of the country will be treated. Readers of the bulletin, therefore, will not look for accounts of passing events, unless such accounts are necessary for future use. In other words, all those matters which are dealt with fully and comprehensively by the press of the country as the days go by ought not to be and will not be used to fill up the pages of the bulletin. The field for the bulletin is wide enough without making it in any sense a newspaper.

The Department now has three channels of communication with the public. By its organic law it is authorized to make an annual report, and special reports when called upon by Congress or by the President or when considered expedient by the head of the Department, and now this more popular way of disseminating information by means of a regularly published bulletin. The annual reports will, as heretofore, consist of the results of investigations which require a large force and considerable time. They are in a sense scientific productions, and can not legitimately be brought to a popular basis in any broad sense. The special reports authorized by the organic law of the Department are those resulting from more thoroughly individual investigations, those where but one or two persons can economically work upon one subject. The annual reports are the results of inquiries made by the schedule system and where any number of people can be employed. The special reports are studies of conditions where the schedule system can not be so generally applied. The bulletin, as against the annual or the special reports, will contain such matters as can not in the nature of things find a place in the annual or special reports; but it is confidently expected that through the bulletin the Department will be able to bring much of its work closer home to the people.

The editors will take personal supervision of the preparation of the bulletin, and it will be their aim to constantly elevate its standard.

STRIKES AND LOCKOUTS IN THE UNITED STATES FROM JANUARY 1, 1881, TO JUNE 30, 1894.

The Third Annual Report of the Commissioner of Labor, entitled Strikes and Lockouts, furnished tables covering the details of all strikes and lockouts occurring in the United States for the six years beginning with January 1, 1881, and ending with December 31, 1886, together with summaries recapitulating the facts shown therein. The Tenth Annual Report (soon to be printed) is a volume of about 1,200 pages consisting of similar tables and summaries for the strikes and lockouts which occurred during the seven and one-half years beginning with January 1, 1887, and ending with June 30, 1894, being modeled on the lines laid down in the former report.

The two general tables relating to strikes and lockouts in the Tenth Annual Report furnish the facts in detail for each strike and lockout of one or more days' duration which occurred in the United States from January 1, 1887, to June 30, 1894. In addition to the strikes and lockouts occurring within the above period the report shows the facts for certain strikes and lockouts which occurred in the latter part of 1886, and which were omitted from the Third Annual Report because of the incompleteness at that time of the data relating to them. A comparatively small number of disturbances of less than one day's duration, 1,582 in all, have been excluded from consideration in these tables. They consist mainly of cases of misunderstanding, in which there was but a few hours' cessation of work and no financial loss or assistance involved. For this reason full information concerning them could rarely be secured, and they have not been considered sufficiently important to be classed as strikes.

In the Third Annual Report it was found necessary to make the establishment the unit in the tabular presentation, and not the strike or lockout. Generally each line there represented either a strike or a lockout in a single establishment, or a general strike or lockout in two or more establishments; but there were some instances where the facts were not so treated. In the Tenth Annual Report experience and a great amount of care have made it possible to make the strike or lockout the unit in all cases.

In order that the increase or diminution of strikes during the years embraced in the Third and Tenth Annual Reports on this subject may

be determined, the following table, showing the number of strikes in each year from January 1, 1881, to June 30, 1894, is presented:

STRIKES BY YEARS, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes.	Establishments.	Average establishments to a strike.	Employees thrown out of employment.
1881	471	2,928	6.2	129,521
1882	454	2,105	4.6	154,671
1883	478	2,759	5.8	149,763
1884	443	2,367	5.3	147,054
1885	645	2,284	3.5	242,705
1886	1,432	10,053	7.0	508,044
1887	1,436	6,589	4.6	379,726
1888	906	3,506	3.9	147,704
1889	1,075	3,786	3.5	249,559
1890	1,833	9,424	5.1	351,944
1891	1,718	8,117	4.7	299,064
1892	1,298	5,540	4.3	206,671
1893	1,305	4,555	3.5	265,914
1894 (6 months)	896	5,154	5.8	482,006
Total	14,390	69,167	4.8	3,714,406

The figures for the years from 1881 to 1886, inclusive, have been taken from the Third Annual Report. As stated in that report, the figures showing the number of strikes in each of these years are estimates, although they are believed to be approximately correct. For the period covered by the Tenth Annual Report, namely, January 1, 1887, to June 30, 1894, inclusive, the figures showing the number of strikes may be accepted as absolute. The figures showing the number of establishments and the number of employees thrown out of employment by strikes may be accepted as correct for the whole period from 1881 to 1894, inclusive. In using this table it should be borne in mind that the figures for 1894 are for the first six months of that year only, the investigation having been closed June 30, 1894.

By this table it is shown that the average number of establishments to each strike for the thirteen and one-half years was 4.8, the highest average being 7 establishments to each strike in 1886, the lowest average being 3.5 establishments to each strike in 1885, 1889, and 1893. As stated in the Third Annual Report, the strikes for 1880 were reported by Mr. Joseph D. Weeks, special agent of the Tenth Census, according to whose report the number was 610. The number of establishments involved was not reported. Commencing with 1881 the number of establishments involved was 2,928. In 1882 the number dropped to 2,105, while in 1883 it rose to 2,759, or nearly that of 1881. In 1884 and 1885 the number fell rapidly, there being 2,367 in 1884, while in 1885 the number of establishments involved in strikes was smaller than in any previous or succeeding year of the period, namely, 2,284. In 1886 the number rose to 10,053, the greatest number in any of the years considered. In 1887 it dropped to 6,589; in 1888 it dropped still further, to 3,506, and remained nearly stationary in 1889 at 3,786, while in 1890 the number again rapidly rose to 9,424, a number almost as great as that for 1886. In the next year, 1891, the number dropped to 8,117, dropping still further in 1892 and 1893, to 5,540 and 4,555,

respectively. For the first six months of 1894 the number was 5,154, indicating that if there was a proportionately large number in the last six months of that year it would reach in round numbers 10,300, a number slightly greater than that for 1886, in which the largest number of establishments were involved in strikes.

The total number of establishments involved in strikes during the whole period of thirteen and one-half years was 69,167. Of this number 4.23 per cent had strikes in 1881, 3.04 per cent had strikes in 1882, 3.99 per cent had strikes in 1883, 3.42 per cent had strikes in 1884, 3.30 per cent had strikes in 1885, 14.53 per cent had strikes in 1886, 9.53 per cent had strikes in 1887, 5.07 per cent had strikes in 1888, 5.47 per cent had strikes in 1889, 13.63 per cent had strikes in 1890, 11.74 per cent had strikes in 1891, 8.01 per cent had strikes in 1892, 6.59 per cent had strikes in 1893, and 7.45 per cent had strikes in the first half of 1894.

Of the 6,067 establishments having lockouts during the period of thirteen and one-half years 0.15 per cent were in 1881, 0.69 per cent were in 1882, 1.93 per cent were in 1883, 5.83 per cent were in 1884, 3.02 per cent were in 1885, 24.87 per cent were in 1886, 21.11 per cent were in 1887, 2.97 per cent were in 1888, 2.18 per cent were in 1889, 5.34 per cent were in 1890, 9 per cent were in 1891, 11.80 per cent were in 1892, 5.03 per cent were in 1893, and 6.08 per cent were in the first half of 1894. The percentage is highest for both strikes and lockouts in 1886. The next highest percentages occur in 1890 and 1891 for strikes, and in 1887 and 1892 for lockouts.

During the seven and one-half years included in the Tenth Annual Report Illinois shows the largest number of establishments affected, both by strikes and lockouts, there being 10,060 of the former and 1,193 of the latter. Next come New York, with 9,540 establishments involved in strikes and 723 in lockouts, and Pennsylvania with 8,219 involved in strikes and 490 in lockouts. During the six years immediately preceding those included in this report, the facts for which appeared in the Third Annual Report, the state in which the greatest number of establishments were affected by strikes was New York, with 9,247, followed by Illinois, with 2,768, and Pennsylvania, with 2,442. The greatest number affected by lockouts was 1,528, found in New York, followed by 147 in Massachusetts and 130 in Pennsylvania, the number in Illinois being 127. Combining the facts for both these periods, in order to secure a statement for the thirteen and one-half years included in both of the reports of the Department on strikes and lockouts, we find the greatest number of establishments affected by strikes to have been in New York, 18,787, followed by Illinois, with 12,828, and Pennsylvania, with 10,661. The states appear in the same order in lockouts, the number of establishments affected being 2,251 in New York, 1,320 in Illinois, and 620 in Pennsylvania.

The industries most affected by strikes during the seven and one-half years included in the Tenth Annual Report were the building

trades, with 20,785 establishments involved; coal and coke, with 5,958; clothing, with 3,041; tobacco, with 2,506; food preparations, with 2,398; stone quarrying and cutting, with 1,993; metals and metallic goods, with 1,834; transportation, with 1,327; printing and publishing, with 608; boots and shoes, with 607; furniture, with 459; wooden goods, with 409, and brick, with 406 establishments. The industries most affected by lockouts were the building trades, with 1,900; stone quarrying and cutting, with 489; clothing, with 431; brewing, with 150; boots and shoes, with 130; metals and metallic goods, with 128, and transportation with 112 establishments involved. For the immediately preceding period of six years, 1881 to 1886, included in the Third Annual Report, the greatest frequency of strikes was found in the building trades, with 6,075 establishments affected; tobacco, with 2,959; mining (practically the same as coal and coke in the Tenth Annual Report), with 2,060; clothing, with 1,728; metals and metallic goods, with 1,570; transportation, with 1,478; food preparations, with 1,419; furniture, with 491; cooperage, with 484; brick, with 478; stone quarrying and cutting, with 468; lumber, with 395; boots and shoes, with 352; wooden goods, with 240, and printing and publishing, with 223 establishments. The lockouts for that period involved 773 establishments in the clothing industry, 531 in the building trades, 226 in the tobacco industry, 155 in boots and shoes, 76 in metals and metallic goods, etc.

A combination of the facts for strikes for the two periods, selecting the 13 industries most largely affected, shows that out of 69,167 establishments involved in strikes during the period from January 1, 1881, to June 30, 1894, 62,038, or 89.69 per cent, were in the following 13 industries: Building trades, 26,860 establishments; coal and coke, 8,018; tobacco, 5,465; clothing, 4,769; food preparations, 3,817; metals and metallic goods, 3,454; transportation, 2,805; stone quarrying and cutting, 2,461; boots and shoes, 959; furniture, 950; brick, 884; printing and publishing, 831, and cooperage, 765.

In the lockouts which occurred during the thirteen and one-half years, six industries bore a very large proportion of the burden, involving 4,914 establishments, or 81 per cent, out of a total of 6,067 establishments. The industries and number of establishments involved in each are as follows: Building trades, 2,431; clothing, 1,204; stone quarrying and cutting, 513; boots and shoes, 285; tobacco, 277, and metals and metallic goods, 204.

The total number of employees involved or thrown out of employment in the whole number of strikes from 1881 to 1886, inclusive, as shown by the Third Annual Report, was 1,323,203. The number as shown by the Tenth Annual Report, for the period from January 1, 1887, to June 30, 1894, was 2,391,203. Adding these numbers together, it is seen that 3,714,406 persons were thrown out of employment by reason of strikes during the period of thirteen and one-half years from January 1, 1881, to June 30, 1894. The number of strikers during the first six years of this period was shown to have been 1,020,156; during the latter

seven and one-half years it was 1,834,218. The number of strikers during the whole period of thirteen and one-half years was therefore 2,854,374. From 1881 to 1886 there were 103,038 new employees engaged after the strikes, of which 37,483 were brought from other places than those in which the strikes occurred. The per cent of new employees after strike of the total number of employees before strike—1,660,835—was therefore 6.20. The per cent of the employees brought from other places of the number of new employees after strike was 36.38.

For the succeeding seven and one-half years, the period involved in the Tenth Annual Report, there were 239,431 new employees after the strikes, of which 115,377 were brought from other places. For this period the per cent of new employees after strike of the total number of employees before strike, 4,300,410, was 5.57, and the per cent of employees brought from other places of the number of new employees after strike, 48.19. Combining the facts for both periods, it is seen that there were, during the thirteen and one-half years, 342,469 new employees engaged after the strikes, and that 152,860 of that number were brought from other places. The new employees after the strikes were 5.74 per cent of the total number of employees before the strikes, 5,961,245, while 44.63 per cent of the new employees after the strikes were brought from other places than those in which the strikes occurred.

In the Third Annual Report it was shown that during the period from 1881 to 1886, inclusive, 2,214 establishments were involved in lockouts, there being 175,270 employees in the establishments before the lockouts occurred, while the number actually involved or locked out was 160,823. There were 13,976 new employees secured at the close of lockouts, 5,682 being brought from other places than those in which the lockouts occurred. For the period of seven and one-half years involved in the Tenth Annual Report lockouts were ordered in 3,853 establishments, having 274,657 employees before the lockouts, of which 205,867 were thrown out of employment in consequence thereof. These establishments secured 27,465 new employees after the lockouts, 16,300 of whom were brought from other places. Combining these facts as to lockouts for the two periods involved, it is seen that during the thirteen and one-half years from January 1, 1881, to June 30, 1894, lockouts occurred in 6,067 establishments in which 449,927 employees were engaged. Of this number 366,690, or 81.50 per cent, were thrown out of employment by the lockouts. In these establishments there were 41,441 new employees engaged after the lockouts, of whom 21,982 were brought from other places than those in which the lockouts occurred. The per cent of new employees after the lockouts of the total number of employees before lockouts was, therefore, 9.21, and of employees brought from other places of the number of new employees after lockouts 53.04.

It should be remembered in considering the figures relating to the number of establishments, the number of employees, etc., that they do not represent the actual number of different individual establish-

ments or different individual employees who were involved in strikes or lockouts in a given industry or in a given year, because in many cases there have been two or more strikes or lockouts in the same establishments in the same year, and in such cases the establishment and the number of employees are duplicated or triplicated, as the case may be, in the totals derived by addition. In the figures showing the number of "employees for whom strike was undertaken" in the tables for strikes there is even more duplication of the kind mentioned. For instance, a sympathetic strike may occur in which the employees strike to enforce the demands of certain employees in another establishment. The number of employees for whom the strike was undertaken, would in that case be the number for whom it was undertaken in that other establishment. The same employees would, therefore, appear in that column in two places in the primary tables, first in connection with the establishment in which they were employed, and second in the establishment in which the sympathetic strike occurred, thus unavoidably being duplicated in tables derived by addition.

As previously stated, a small number of strikes occurring in 1886, 21 in all, which were unavoidably omitted from the Third Annual Report, have been tabulated in the later one. Wherever the facts shown by the two reports are given by years this number and the various facts relating thereto have been added to the figures for 1886 as shown by the Third Annual Report. In the statements previously made, by states and by industries, they have not been so added, but appear in the totals for the period involved in the later report. The number is so small as to make no appreciable difference when comparing the two reports, and to have eliminated them in the later and added them to the Third Annual Report would have involved the reader in many difficulties.

The following table, classifying the employees involved in strikes and lockouts as to sex, combines the facts shown in the Third Annual Report with those shown in the Tenth Annual Report:

SEX OF EMPLOYEES THROWN OUT OF EMPLOYMENT, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes.			Lockouts.		
	Employees thrown out of employment.	Males (per cent).	Females (per cent).	Employees thrown out of employment.	Males (per cent).	Females (per cent).
1881	129,521	94.08	5.92	655	83.21	16.79
1882	154,671	92.15	7.85	4,131	93.80	6.20
1883	149,763	87.66	12.34	20,512	73.58	26.42
1884	147,054	88.78	11.22	18,121	78.93	21.07
1885	242,705	87.77	12.23	15,424	83.77	16.23
1886	508,044	86.17	13.83	101,980	63.02	36.98
1887	379,726	91.77	8.23	59,630	94.76	5.24
1888	147,704	91.50	8.50	15,176	79.53	20.47
1889	249,559	90.48	9.52	10,731	73.91	26.09
1890	351,944	90.53	9.47	21,555	72.49	27.51
1891	299,064	94.90	5.10	31,014	59.13	40.87
1892	206,671	93.57	6.43	32,014	96.02	3.98
1893	265,914	93.06	6.94	21,842	84.95	15.05
1894 (6 months)	482,066	95.13	4.87	13,905	95.83	4.17
Total	3,714,406	91.22	8.78	366,690	77.47	22.53

An examination of the Tenth Annual Report shows that during the seven and one-half years included in it 69.39 per cent of all the establishments affected by strikes and 75.91 per cent of all affected by lockouts were located in the five states of Illinois, Massachusetts, New York, Ohio, and Pennsylvania. During the six years immediately preceding the above period, it is shown in the Third Annual Report that 74.84 per cent of all establishments in the country, so far as strikes were concerned, and 89.48 per cent of all the establishments in the country, so far as lockouts were concerned, were found in the same states. The following table, combining these facts for the entire period of thirteen and one-half years included in the Third and Tenth Annual Reports, shows the percentages for each year for the five states named:

ESTABLISHMENTS INVOLVED IN ILLINOIS, MASSACHUSETTS, NEW YORK, OHIO, AND PENNSYLVANIA, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes.			Lockouts.		
	Total establishments in the United States.	Establishments in the five selected states.	Per cent of establishments in the five selected states.	Total establishments in the United States.	Establishments in the five selected states.	Per cent of establishments in the five selected states.
1881	2,928	2,154	73.57	9	4	44.44
1882	2,105	1,499	71.21	42	23	54.76
1883	2,759	2,046	74.16	117	105	89.74
1884	2,367	1,896	80.10	354	306	86.44
1885	2,284	1,586	69.44	183	140	76.50
1886	10,053	7,675	76.35	1,509	1,403	92.98
1887	6,589	4,761	72.26	1,281	1,188	92.74
1888	3,506	2,404	68.57	180	114	63.33
1889	3,786	2,275	60.09	132	65	49.24
1890	9,424	6,990	74.17	324	203	62.65
1891	8,117	5,776	71.16	546	339	62.09
1892	5,540	3,200	57.76	716	522	72.91
1893	4,555	3,186	69.95	305	190	62.30
1894 (6 months)	5,154	3,762	72.99	369	304	82.38
Total	69,167	49,210	71.15	6,067	4,906	80.86

These five states contained 51 per cent of all the manufacturing establishments, and employed 56 per cent of the capital invested in the mechanical industries of the United States, taking the census of 1890 as the basis of computation.

The distribution of strikes and lockouts, by cities, during the seven and one-half years from January 1, 1887, to June 30, 1894, is shown in the following tables:

SUMMARY OF STRIKES IN THE PRINCIPAL CITIES, JANUARY 1, 1887, TO JUNE 30, 1894.

[In the case of many general strikes extending through different cities it was found impossible to subdivide the facts and credit them to the several cities involved. In such cases the whole strike has generally been tabulated against the city most largely affected.]

City.	Total strikes.	Establishments.	Employees thrown out of employment.	Wage loss of employees.	Assistance to employees by labor organizations.	Loss of employers.
New York, N. Y	2,614	6,467	215,649	$6,449,385	$792,817	$3,545,766
Brooklyn, N. Y	671	1,271	31,768	914,045	145,848	532,780
Chicago, Ill	528	8,325	282,611	8,846,494	1,886,788	14,444,034
Boston, Mass	257	911	25,574	800,882	173,564	589,982
Allegheny and Pittsburg, Pa	251	4,142	100,822	7,379,765	722,706	2,599,487
Philadelphia, Pa	240	1,132	59,527	2,002,219	194,277	836,568
Saint Louis, Mo	111	1,064	19,693	848,357	96,506	572,933
Cincinnati, Ohio	109	580	17,577	736,306	72,886	572,272
Milwaukee, Wis	100	1,237	20,778	1,265,049	112,862	799,700
Lynn, Mass	100	110	4,027	147,028	9,871	86,488
Fall River, Mass	95	156	30,232	500,264	22,429	118,319
San Francisco, Cal	92	337	7,254	480,387	96,854	415,625
Baltimore, Md	92	280	11,192	424,149	18,604	187,552
New Haven, Conn	82	205	5,287	206,340	35,588	40,568
Newark, N. J	69	324	11,538	500,896	58,734	154,460
Cleveland, Ohio	64	314	11,322	208,738	26,324	117,207
Rochester, N. Y	56	237	9,314	478,702	11,781	300,621
Indianapolis, Ind	51	309	7,851	116,429	10,353	161,102
Haverhill, Mass	51	76	5,271	97,239	6,660	78,495
Minneapolis, Minn	50	169	7,615	167,524	18,399	189,400
Paterson, N. J	47	117	22,326	1,019,768	26,757	555,200
Buffalo, N. Y	46	408	14,079	459,758	19,950	818,015
Jersey City, N. J	46	113	7,819	90,020	1,330	12,275
Saint Paul, Minn	45	255	22,475	780,325	24,520	1,017,795
Troy, N. Y	42	123	3,649	68,031	3,769	39,802
Total	5,909	28,662	955,250	34,988,100	4,590,177	28,786,446

SUMMARY OF LOCKOUTS IN THE PRINCIPAL CITIES, JANUARY 1, 1887, TO JUNE 30, 1894.

[In the case of many general lockouts extending through different cities it was found impossible to subdivide the facts and credit them to the several cities involved. In such cases the whole lockout has generally been tabulated against the city most largely affected.]

City.	Total lockouts.	Establishments.	Employees thrown out of employment.	Wage loss of employees.	Assistance to employees by labor organizations.	Loss of employers.
New York, N. Y	43	393	19,959	$587,801	$83,112	$370,442
Boston, Mass	19	128	3,072	212,434	40,450	97,111
Chicago, Ill	18	1,151	48,612	3,576,817	70,050	2,789,910
Allegheny and Pittsburg, Pa	15	385	11,572	5,353,764	250,025	727,959
Philadelphia, Pa	14	82	9,262	447,958	62,585	510,575
Cincinnati, Ohio	13	96	3,908	211,375	27,508	60,339
San Francisco, Cal	12	42	776	67,763	13,170	18,200
Haverhill, Mass	10	57	7,436	101,606	5,900	60,400
Saint Paul, Minn	10	55	1,056	30,780	8,303	46,150
Brooklyn, N. Y	9	64	2,360	68,424	6,092	121,225
Saint Louis, Mo	8	42	1,006	217,247	45,249	48,140
Milwaukee, Wis	7	25	752	245,755	12,375	505,600
Minneapolis, Minn	7	7	1,650	28,250	2,828	26,100
Indianapolis, Ind	6	116	1,135	65,224	900	20,000
Rochester, N. Y	6	81	18,271	462,260	3,159	205,545
Richmond, Va	6	15	117	10,503	2,274	650
Buffalo, N. Y	5	30	930	72,438	365	13,670
Seattle, Wash	5	23	423	19,600	2,628	4,040
Detroit, Mich	5	11	1,264	56,201	14,642	5,500
Springfield, Mass	5	8	208	1,230	.....	11,755
New Haven, Conn	5	8	64	3,344	840	15,725
Baltimore, Md	5	6	239	7,240	2,684	7,950
Newark, N. J	4	49	2,974	139,536	12,350	29,700
Woburn, Mass	4	19	1,577	78,646	4,329	45,600
Albany, N. Y	3	77	1,512	42,267	.....	12,000
Total	244	2,970	140,135	12,108,463	671,818	5,754,286

In the case of both strikes and lockouts the cities shown are the 26 in which the greatest number of these disturbances occurred during the period included in the report. It will be noticed that the cities are

practically the same in both classes of disturbances, only 6 cities in each table being different.

Considering the table for strikes, it is seen that out of a total of 10,488 strikes for the entire country, 5,909, or 56.34 per cent, occurred in the 26 cities included in that table. The number of establishments involved in strikes in the United States during the period was shown as 46,863, of which number 28,662, or 61.16 per cent, occurred in the 26 cities. The wage loss to employees through strikes in the 26 cities was $34,988,100 as against $111,993,143 for the entire country, and the loss to employers $28,786,446 as against $51,888,833. These 26 cities contained 34.26 per cent of all the manufacturing establishments, and employed 38.88 per cent of the capital invested in the mechanical industries of the United States, taking the census of 1890 as the basis of computation. Seven of the 26 cities, New York, Brooklyn, Chicago, Boston, Allegheny, Pittsburg, and Philadelphia, reported 4,561 strikes, or 43.49 per cent, of all the strikes which occurred in the United States during the period involved, and 22,248 establishments, or 47.47 per cent, of the whole number of establishments involved.

Of the 22,304 establishments involved in strikes during the six years covered by the Third Annual Report (1881 to 1886), as was there shown, the strikes in 18,342, or 82.24 per cent of the whole, were ordered by labor organizations, while of the 2,214 establishments in which lockouts occurred 1,753, or 79.18 per cent, were ordered by combinations of employers. The facts for the seven and one-half years included in the Tenth Annual Report (January 1, 1887, to June 30, 1894) are as follows: Excluding from consideration seven strikes for which no report touching this point could be secured, 7,295, or 69.60 per cent of the whole number of strikes (10,481), were ordered by labor organizations, while of the 442 lockouts occurring during this period but 81, or 18.33 per cent, were ordered by an employers' organization. It will be noticed, in the preceding statement, that for the former period the establishment forms the basis of the percentages, while for the latter the strike or lockout forms the basis. This is unavoidable, owing to the difference in the tabulation of the facts for this point in the two reports. It does not, however, materially affect the comparableness of the percentages. Bearing this in mind, the facts for each year in this respect may be clearly seen in the percentage table which follows:

STRIKES AND LOCKOUTS ORDERED BY ORGANIZATIONS, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes (per cent).	Lockouts (per cent).	Year.	Strikes (per cent).	Lockouts (per cent).
1881	75.58	22.22	1888	68.14	20.00
1882	76.01	26.19	1889	67.35	11.11
1883	83.98	41.03	1890	71.33	14.06
1884	82.85	79.10	1891	74.84	13.04
1885	70.93	71.58	1892	70.72	22.95
1886	87.53	84.89	1893	69.43	21.43
1887	66.34	25.37	1894 (6 months)	63.80	14.29

Combining the facts for the period involved in the Third Annual Report with those for the period included in the later report, the following table shows by years, in the form of percentages, the proportion of the establishments involved in both strikes and lockouts which were closed in consequence of such disturbance:

ESTABLISHMENTS CLOSED, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes (per cent).	Lockouts (per cent).	Year.	Strikes (per cent).	Lockouts (per cent).
1881	55.81	33.33	1889	61.89	59.09
1882	54.01	59.52	1890	56.25	63.89
1883	63.57	58.12	1891	56.66	65.93
1884	64.72	37.85	1892	65.60	66.90
1885	71.58	79.23	1893	65.64	40.98
1886	58.24	67.93	1894 (6 months)	60.50	14.91
1887	57.55	83.84			
1888	53.45	55.00	Average	59.56	63.90

Referring to the Third Annual Report, it is seen that from 1881 to 1886, inclusive, of the 22,304 establishments subjected to strikes, 13,411, or 60.13 per cent, were temporarily closed, and of the 2,214 establishments in which lockouts occurred, 1,400, or 63.23 per cent, were closed. The duration of stoppage, or the average days closed, for strikes was 23 days and for lockouts 28.4 days. The facts as shown in the Tenth Annual Report for the seven and one-half years from January 1, 1887, to June 30, 1894, are that of 46,863 establishments subjected to strikes 27,787, or 59.29 per cent, were closed, 42 being closed permanently or having strikes still pending June 30, 1894, the remainder being only temporarily closed; while of the 3,853 establishments involved in lockouts 2,477, or 64.29 per cent, were closed, 23 being closed permanently or having lockouts still pending June 30, 1894, the remainder being only temporarily closed. The average days closed on account of strikes, excluding the 42 above mentioned, was 22.3 days, and on account of lockouts, excluding the 23 above mentioned, 35.4 days.

Combining the facts for the two periods, as shown by the preceding figures, it is seen that during the thirteen and one-half years from January 1, 1881, to June 30, 1894, out of a total of 69,167 establishments in which strikes occurred, 41,198, or 59.56 per cent, were closed, while of the 6,067 establishments subjected to lockouts, 3,877, or 63.90 per cent, were closed. The duration of stoppage, or days closed, in the 41,156 establishments which were temporarily closed, was 22.5 days, while in the 3,854 establishments temporarily closed by reason of lockouts the average time closed was 32.8 days.

The duration of strikes or lockouts themselves—that is, the average length of time which elapsed before the establishments resumed operations and were running normally, either by reason of the strikers or employees locked out having returned to work or by their places having been filled by others—applies to all establishments, whether closed or not, and differs of course from the figures given for duration of entire stoppage of work, which applies only to establishments entirely

closed. The following table shows the average duration or days to date when strikers or employees locked out were reemployed or their places filled by others for each of the years included in the Third and Tenth Annual Reports. A small number of establishments which were closed permanently in consequence of strikes or lockouts, or in which strikes or lockouts were still pending, have of course been omitted in computing the averages:

DURATION OF STRIKES AND LOCKOUTS, JANUARY 1, 1881, TO JUNE 30, 1894.

[The duration involves the number of days from date of strike or lockout to date when employees returned to work or when their places were filled by others.]

Year.	Strikes.		Lockouts.		Year.	Strikes.		Lockouts.	
	Establishments.	Average duration (days).	Establishments.	Average duration (days).		Establishments.	Average duration (days).	Establishments.	Average duration (days).
1881	2,928	12.8	9	32.2	1889	3,786	26.3	132	57.5
1882	2,105	21.9	42	105.0	1890	9,424	24.2	324	73.9
1883	2,759	20.6	117	57.5	1891	8,117	34.9	546	37.8
1884	2,367	30.5	354	41.4	1892	5,540	23.4	716	72.0
1885	2,284	30.1	183	27.1	1893	4,555	20.6	305	34.7
1886	10,053	23.4	1,509	39.1	1894 (6 months)	5,154	37.8	369	18.7
1887	6,589	20.9	1,281	49.8					
1888	3,506	20.3	180	74.9	Total	69,167	25.4	6,067	47.6

According to the Third Annual Report, for the years 1881 to 1886, of the firms against whom strikes were instituted 46.52 per cent granted the demands of their employees; in 13.47 per cent of the establishments partial success in attaining the objects for which the strikes were instituted was gained, while failure followed in 39.95 per cent of the establishments; a small number of establishments, constituting 0.06 per cent of the whole number, had strikes still pending December 31, 1886. In the lockouts during those years the firms gained their point in 25.47 per cent of the establishments; in 8.58 per cent they partially succeeded and in 60.48 per cent failed; in 5.47 per cent of the whole number of establishments involved the lockouts were still pending December 31, 1886.

For the period included in the Tenth Annual Report, out of the whole number of establishments affected by strikes, viz, 46,863, success in their demands was gained by the employees in 20,397 establishments, or 43.52 per cent; partial success was gained in 4,775 establishments, or 10.19 per cent; and failure followed in 21,687 establishments, or 46.28 per cent of the whole number; for 4 establishments, or 0.01 per cent, either the results were not reported or the strikes were still pending June 30, 1894. Out of the 3,853 establishments having lockouts, 1,883, or 48.87 per cent of the whole number, succeeded in gaining their demands; 391, or 10.15 per cent, partially succeeded, and 1,558, or 40.44 per cent, failed; in 21 establishments, or 0.54 per cent of the whole number, the lockouts were still pending June 30, 1894. The percent-

ages for each of the years included in the two reports are shown as follows:

RESULTS FOR ESTABLISHMENTS, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Per cent of establishments in strikes which—			Per cent of establishments in lockouts which—		
	Succeeded.	Succeeded partly.	Failed.	Succeeded	Succeeded partly.	Failed.
1881	61.37	7.00	31.63	88.89	11.11	.....
1882	53.59	8.17	38.24	64.29	.....	35.71
1883	58.17	16.09	25.74	56.41	.....	43.59
1884	51.50	3.89	44.61	27.97	.28	71.75
1885	52.80	9.50	37.70	38.25	3.28	58.47
1886	*a* 34.45	*a* 18.82	*a* 46.58	*b* 19.48	*b* 12.06	*b* 60.44
1887	45.64	7.19	47.17	34.19	1.25	64.56
1888	52.22	5.48	42.30	74.44	3.89	21.67
1889	46.49	18.91	34.60	40.91	25.76	33.33
1890	*c* 52.64	*c* 10.01	*c* 37.34	65.74	5.56	28.70
1891	37.87	8.29	53.84	63.92	14.29	21.79
1892	39.31	8.70	51.99	69.13	25.28	5.59
1893	*d* 50.82	*d* 10.32	*d* 38.79	*e* 39.02	*e* 17.05	*e* 37.05
1894 (6 months)	23.83	15.66	60.51	21.95	1.36	76.69
Total	*f* 44.49	*f* 11.25	*f* 44.23	*g* 40.33	*g* 9.58	*g* 47.75

a Not including 15 establishments in which strikes were still pending December 31, 1886.
b Not including 121 establishments in which lockouts were still pending December 31, 1886.
c Not including 1 establishment not reporting.
d Not including 3 establishments in which strikes were still pending June 30, 1894.
e Not including 21 establishments in which lockouts were still pending June 30, 1894.
f Not including 19 establishments for the reasons stated in notes *a*, *c*, and *d*.
g Not including 142 establishments for the reasons stated in notes *b* and *e*.

For the thirteen and one-half years ending June 30, 1894, as shown by this table, out of a total of 69,167 establishments affected by strikes the employees were successful in gaining their demands in 30,772, or 44.49 per cent, and partly successful in 7,779, or 11.25 per cent, while in 30,597 establishments, or 44.23 per cent, they failed; in a very small number of establishments, constituting 0.03 per cent of all the establishments involved, the results of strikes were not obtainable. Of the 6,067 establishments in which lockouts occurred during the same period, the firms gained their point in 2,447 establishments, or 40.33 per cent of the whole number involved; in 581, or 9.58 per cent, they were partly successful, while in 2,897, or 47.75 per cent, they failed; in the remaining 142, or 2.34 per cent of the establishments, the results of the lockouts were not obtainable.

The results of strikes from 1881 to 1886, so far as they concerned employees, as shown in the Third Annual Report, were as follows: The number of persons thrown out of employment, in the 10,375 establishments having successful strikes, was 518,583; in the 3,004 establishments in which strikes were partly successful 143,976 employees were involved, while in the 8,910 establishments in which the strikes were failures 660,396 persons were thrown out of employment. The results of strikes in 15 establishments, involving 248 persons, were not reported. While the establishments in which strikes succeeded constituted 46.52 per cent of the establishments in which strikes occurred, the number of persons thrown out of employment in the successful

strikes constituted but 39.19 per cent of the whole number of persons involved; the number of establishments involved in partly successful strikes was 13.47 per cent of all establishments, while the number of persons involved in such strikes was only 10.88 per cent of the whole number of persons. The number of establishments in which strikes failed constituted 39.95 per cent of the whole number, while 49.91 per cent of the number of persons thrown out of employment were involved in such strikes. The number of establishments in which the results of strikes were not reported constituted 0.06 per cent of the entire number, the number of persons thrown out of employment in such establishments being 0.02 per cent of the entire number of persons thrown out of employment.

The results for the succeeding seven and one-half years, from January 1, 1887, to June 30, 1894, so far as they concerned employees, as shown in the Tenth Annual Report, are as follows: In the 20,397 establishments having successful strikes 669,992 persons were thrown out of employment; in the 4,775 establishments in which strikes were partly successful 318,801 employees were involved, while in the 21,687 establishments in which strikes failed, 1,400,988 persons were thrown out of employment. The results were not reported in 19 establishments in which 1,422 persons were involved. While the establishments in which strikes succeeded constituted 43.52 per cent of the establishments in which strikes occurred, the number of persons thrown out of employment in the successful strikes constituted 28.02 per cent of the whole number of persons involved; the number of establishments involved in partly successful strikes was 10.19 per cent of all establishments, while the number of persons involved in such strikes was 13.33 per cent of the whole number. The number of establishments in which strikes failed was 46.28 per cent of the whole number, while 58.59 per cent of the whole number of persons thrown out of employment were involved in such strikes. In 0.01 per cent of the entire number of establishments, including 0.06 per cent of the number of persons thrown out of employment, the results of strikes were not reported.

The following table combines the facts for the two reports, showing the results, so far as employees are concerned, for the strikes during an uninterrupted period of thirteen and one-half years, beginning January 1, 1881, and ending June 30, 1894:

RESULTS OF STRIKES FOR EMPLOYEES, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Number thrown out of employment.				Per cent thrown out of employment.		
	In successful strikes.	In partly successful strikes.	In strikes which failed.	In total strikes.	In successful strikes.	In partly successful strikes.	In strikes which failed.
1881	55,600	17,482	56,439	129,521	42.93	13.50	43.57
1882	45,746	7,112	101,813	154,671	29.58	4.60	65.82
1883	55,140	17,024	77,599	149,763	36.82	11.37	51.81
1884	52,736	5,044	89,274	147,054	35.86	3.43	60.71
1885	115,375	23,855	103,475	242,705	47.54	9.83	42.63
1886	*a* 195,400	*a* 74,167	*a* 238,229	508,044	*a* 38.46	*a* 14.60	*a* 46.90
1887	127,629	26,442	225,655	379,726	33.61	6.96	59.43
1888	41,106	11,130	95,468	147,704	27.83	7.54	64.63
1889	72,099	62,607	114,853	249,559	28.89	25.09	46.02
1890	*b* 158,787	*b* 48,444	*b* 144,681	351,944	*b* 45.12	*b* 13.76	*b* 41.11
1891	80,766	22,885	195,413	299,064	27.01	7.65	65.34
1892	61,125	16,429	129,117	206,671	29.58	7.95	62.47
1893	*c* 62,018	*c* 41,765	*c* 160,741	265,914	*c* 23.32	*c* 15.71	*c* 60.45
1894 (6 months)	65,048	88,391	328,627	482,066	13.49	18.34	68.17
Total	*d* 1,188,575	*d* 462,777	*d* 2,061,384	3,714,406	*d* 32.00	*d* 12.46	*d* 55.50

a Not including 248 engaged in strikes still pending December 31, 1886.
b Not including 32 engaged in strikes not reporting result.
c Not including 1,390 engaged in strikes still pending June 30, 1894.
d Not including 1,670 for the reasons stated in the preceding notes.

The totals as given in this table show that the number of persons thrown out of employment in the 30,772 establishments having successful strikes was 1,188,575. In the 7,779 establishments in which partial success was gained 462,777 employees were involved, while in the 30,597 establishments in which strikes failed 2,061,384 persons were thrown out of employment. The last three columns of the table show for each year, and for the thirteen and one-half years, the per cent of employees in establishments in which the strikes succeeded, partly succeeded, or failed. Taking the total for the period of thirteen and one-half years, it is seen that 32 per cent of the whole number of persons thrown out of employment succeeded in gaining the object for which they struck; 12.46 per cent succeeded partly, while 55.50 per cent, or over half of the whole number, failed entirely in gaining their demands. A small proportion of the whole number, 0.04 per cent, for the various reasons stated in the notes to the table, made no report as to the result.

The Third Annual Report shows that for the years included therein (1881 to 1886) seventeen of the causes for which strikes were undertaken included 90.28 per cent of all the establishments, leaving the remaining 297 causes operative in only 9.72 per cent of establishments in which strikes occurred. Even four leading causes were found to cover 77.16 per cent of the establishments. The following table was there given as clearly bringing out these facts:

LEADING CAUSES OF STRIKES, JANUARY 1, 1881, TO DECEMBER 31, 1886.

Cause or object.	Establishments.	Per cent.
For increase of wages	9,439	42.32
For reduction of hours	4,344	19.48
Against reduction of wages	1,734	7.77
For increase of wages and reduction of hours	1,692	7.59
For reduction of hours and against being compelled to board with employer	800	3.59
For change of hour of beginning work	360	1.61
For increase of wages and against the contract system	238	1.07
For increase of wages and against employment of nonunion men	215	.96
In sympathy with strike elsewhere	173	.77
For 8 hours' work with 10 hours' pay	172	.77
Against employment of nonunion men, foremen, etc	162	.73
For increase of wages and recognition of union	145	.65
For adoption of union, etc., scale of prices	142	.64
Against increase of hours	138	.62
For increase of wages and enforcement of union indenture rules	132	.59
For reduction of hours and wages	126	.56
For reinstatement of discharged employees, foremen, etc	124	.56
Total of 17 leading causes	20,136	90.28
All other causes (297)	2,168	9.72
Total for the United States	22,304	100.00

An examination of the causes for which strikes were undertaken during the period of seven and one-half years included in the Tenth Annual Report, shows that the seventeen principal causes included 81.23 per cent of all the establishments, leaving the remaining 574 causes active in only 18.77 per cent of the establishments subjected to strikes during the period. Five of the leading causes included a very large proportion of all establishments, the per cent being 61.42 of the whole number involved. The following table, showing the number and per cent of establishments falling under each of the seventeen principal causes, during the period of seven and one-half years involved in this report, brings out these percentages in detail:

LEADING CAUSES OF STRIKES, JANUARY 1, 1887, TO JUNE 30, 1894.

Cause or object.	Establishments.	Per cent.
For increase of wages	12,041	25.69
For reduction of hours	6,199	13.23
Against reduction of wages	3,830	8.17
In sympathy with strike elsewhere	3,620	7.73
For increase of wages and reduction of hours	3,095	6.60
Against employment of nonunion men	1,688	3.60
For adoption of new scale	1,559	3.33
For recognition of union	1,314	2.80
For adoption of union scale	844	1.80
For adoption of union rules and union scale	783	1.67
For increase of wages and recognition of union	686	1.46
To compel World's Fair directors to employ none but union men in building trades	472	1.01
For reinstatement of discharged employees	468	1.00
For payment of wages overdue	383	.82
For increase of wages, and reduction of hours on Saturday	378	.81
Against being compelled to board with employer, and for reduction of hours and recognition of union	366	.78
For fortnightly payment	342	.73
Total of 17 leading causes	38,068	81.23
All other causes (574)	8,795	18.77
Total for the United States	46,863	100.00

One of the most important features of the tabulation is the statement of the losses of the employees and of the employers by reason of strikes and lockouts. These figures were collected with the greatest possible care, and although in many cases only an estimate could be secured the results as given are believed to be a very close approximation to the exact losses. It is natural to suppose that after the lapse of several years exact figures could not be secured concerning facts of which no record is kept in most instances. The figures here given are for the immediate, and in many instances only temporary, losses of employees and employers. In most businesses there are seasons of entire or partial idleness among its employees, owing to sickness, voluntary lay-offs, running slack time, etc., the working days per year being on an average from 200 to 250 days out of a possible 313. When a strike or lockout occurs in an establishment whose business is of such a character it is often followed by a period of unusual activity, in which the employee and employer both make up the time lost by reason of the temporary cessation of business on account of the strike.

The employer may in some instances be subjected to an ultimate loss by reason of his inability to fill contracts already made, but it may be accepted as a fact that much of the loss in the cases of both employer and employee is only temporary. It was found impossible, however, for the agents of the Department to take these facts into consideration, inasmuch as in many instances a period of six months or even a year must have elapsed before the whole or even a part of such loss was made up. The computation of wage loss has, therefore, been based on the number of employees thrown out of employment, their average wages, and the number of working days which elapsed before they were reemployed or secured work elsewhere. The amounts representing employers' losses are the figures (in most cases, estimates) furnished by the firms themselves, the Department's agents being instructed to consider, as well as they could, their probable correctness. In the summaries by years the figures can not represent absolute accuracy for a given year, because many strikes beginning in one year ended in another; the entire loss and assistance, as well as the other facts included in the tabulation, have been placed in the year in which the strike or lockout began. These differences may, however, counterbalance each other, and the reported results thus be nearly accurate.

Bearing in mind, then, the difficulties in ascertaining the exact losses of employees and employers as a result of strikes and lockouts, reference may be had to the following table showing the amount of loss to employees and to employers and the amount of assistance granted employees by their labor organizations for a period of thirteen and one-half years from January 1, 1881, to June 30, 1894.

WAGE LOSS OF EMPLOYEES, ASSISTANCE TO EMPLOYEES, AND LOSS OF EMPLOYERS, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes.			Lockouts.		
	To date when strikers were reemployed or employed elsewhere.		Loss of employers.	To date when employees locked out were reemployed or employed elsewhere.		Loss of employers.
	Wage loss of employees.	Assistance to employees by labor organizations.		Wage loss of employees.	Assistance to employees by labor organizations.	
1881	$3,372,578	$287,999	$1,919,483	$18,519	$3,150	$6,960
1882	9,864,228	734,339	4,269,094	466,345	47,668	112,382
1883	6,274,480	461,233	4,696,027	1,069,212	102,253	297,097
1884	7,606,717	407,871	3,393,073	1,421,410	314,027	640,847
1885	16,663,248	465,827	4,388,893	901,173	89,488	455,477
1886	14,992,453	1,122,130	12,357,808	4,281,058	549,452	1,949,498
1887	16,560,534	1,121,554	6,698,495	4,233,700	155,846	2,819,736
1888	6,377,749	1,752,668	6,509,017	1,100,057	85,931	1,217,199
1889	10,409,686	592,017	2,936,752	1,379,722	115,389	307,125
1890	13,875,338	910,285	5,135,404	957,966	77,210	486,258
1891	14,801,714	1,132,557	6,177,288	883,709	50,195	616,888
1892	10,772,622	833,874	5,145,691	2,856,013	537,684	1,695,080
1893	9,938,048	563,183	3,406,195	6,659,401	364,268	1,034,420
1894 (6 months)	28,238,471	528,869	15,557,166	457,231	31,737	596,484
Total	163,807,866	10,914,406	82,590,386	26,685,516	2,524,298	12,235,451

The loss to employees in the establishments in which strikes occurred, for the period of thirteen and one-half years, was $163,807,866; the loss to employees through lockouts for the same period was $26,685,516; or a total loss to employees by reason of these two classes of industrial disturbances of $190,493,382. The number of establishments involved in strikes during this period was 69,167, making an average loss of $2,368 to employees in each establishment in which strikes occurred. The number of persons thrown out of employment by reason of strikes was 3,714,406, making an average loss of $44 to each person involved. The number of establishments involved in lockouts was 6,067, making an average loss of $4,398 to employees in each establishment in which lockouts occurred, while the number of employees locked out was 366,690, making an average loss of $73 to each person involved. Combining the figures for strikes and lockouts, it is seen that the wage loss to employees as above stated was $190,493,382 and the number of establishments involved 75,234, while 4,081,096 persons were thrown out of employment. These figures show an average wage loss of $2,532 to the employees in each establishment and an average loss of $47 to each person involved.

The assistance given to strikers during the thirteen and one-half years, so far as ascertainable, was $10,914,406; to those involved in lockouts, $2,524,298, or a total sum of $13,438,704. This sum represents but 7.05 per cent of the total wage loss incurred in strikes and lockouts, and is probably too low. In addition to this sum, which includes only assistance from labor organizations, much assistance was furnished by outside sympathizers, the amount of which the Department had no means of ascertaining.

The loss to employers through strikes during this thirteen and one-half years amounted to $82,590,386; their losses through lockouts amounted to $12,235,451, making a total loss to the establishments or firms involved *in strikes and lockouts* during this period of $94,825,837.

STRIKES AND LOCKOUTS IN GREAT BRITAIN AND IRELAND IN RECENT YEARS.

Since 1888 the statistical and other information concerning labor disturbances in Great Britain and Ireland has been published in the annual reports of the Labor Department of the Board of Trade under the title of Reports by the Chief Labor Correspondent on Strikes and Lockouts, and the information presented herewith has been obtained from those reports. The report for 1888, being the first, is not so comprehensive as those for subsequent years; for this reason, and also to enable a uniform presentation of the various facts, the report for the year 1889 is taken as the starting point, the figures being shown as far as practicable for each year up to and including 1893.

The number of strikes reported for each year is shown in the following statement:

STRIKES, 1889 TO 1893.

Division.	1889.	1890.	1891.	1892.	1893.	Total.
England	813	716	667	512	509	3,217
Wales	53	88	63	52	48	304
Scotland	246	156	125	110	175	812
Ireland	33	68	38	18	36	193
Total	1,145	1,028	893	692	768	4,526

In counting the number of strikes that occurred in 1889, wherever full details were obtained of separate establishments engaged in a general strike, each establishment was considered as one strike. It was not always possible, however, to obtain full details for all the separate establishments affected by a general strike. In those instances a large number of establishments were counted in the annexed table as only one strike. Owing to the difficulty of ascertaining the actual number of establishments affected and of distinguishing between the number of distinct strikes and the number of establishments involved, the system was changed for 1890 and subsequent years so that each strike, whether general or merely local, was counted as one, irrespective of the number of establishments affected. Under these circumstances it can not be inferred that the strike movement in 1890 was not as violent as in 1889, as the above table seems to indicate. A more accurate comparison for the two years may be made by saying that in 1889 there were 3,164 distinct establishments affected by the 1,145 strikes, but the system of enumeration then adopted was not so clear as in 1890, when 4,382 distinct establishments were reported, supposing where no information is given that only one establishment is concerned.

In some of the following statements the two classes of labor disputes, strikes and lockouts, have been combined, but when practicable they have been treated separately. Comparatively few lockouts occurred in the United Kingdom during the period from 1889 to 1893. The following statement gives the number reported for each year; the great decrease from 1889 to 1890 is probably accounted for by the change in the method of enumeration previously referred to in connection with strikes:

LOCKOUTS, 1889 to 1893.

Year.	Number.	Year.	Number.
1889	66	1892	8
1890	12	1893	14
1891	13	Total	113

Statistics concerning the cause or object of strikes and their success or failure are probably of more importance and interest than those on any other branch of the subject. Space will not permit a detailed statement of the numerous causes and objects of strikes as presented in the several reports. The grouping adopted in the following statement is in a measure arbitrary with this office:

RESULTS OF STRIKES BY CAUSES, 1889 TO 1893.

Cause or object.	Year.	Succeeded.	Succeeded partly.	Failed.	Not reported.	Total.
For increase of wages, and the same combined with secondary causes.	1889	342	290	76	60	768
	1890	208	152	109	45	514
	1891	149	74	68	26	317
	1892	125	59	59	17	260
	1893	116	60	68	12	256
Total		940	635	380	160	2,115
Against reduction of wages, and the same combined with secondary causes.	1889	12	8	20	5	45
	1890	34	14	30	5	83
	1891	52	31	32	14	129
	1892	40	19	50	15	124
	1893	72	45	67	14	198
Total		210	117	199	53	579
For introduction or enforcement of scale of prices, disputes as to former agreements, etc.	1889	20	10	4	2	36
	1890	23	4	10	5	42
	1891	17	8	12	1	38
	1892	4	3	3	3	13
	1893	6	3	7	2	18
Total		70	28	36	13	147
For reduction of hours; for uniformity of hours, and against increase of hours without corresponding increase of wages.	1889	(a)	(a)	(a)	(a)	(a)
	1890	10	6	5	2	23
	1891	14	6	3	.....	23
	1892	7	4	2	1	14
	1893	6	1	2	1	10
Total		b 37	b 17	b 12	b 4	b 70
Against conditions of work, materials, subcontracting, shop rules, fines, etc.	1889	c 78	c 40	c 57	c 5	c 180
	1890	57	36	59	12	164
	1891	87	34	60	14	195
	1892	52	21	58	10	141
	1893	39	23	48	5	115
Total		c 313	c 154	c 282	c 46	c 795

a Inseparably combined with strikes of 1889 for the cause immediately following.
b Not including strikes of 1889 inseparably combined with those of the same year for the cause immediately following.
c Including strikes of 1889 *for the cause immediately* preceding.

RESULTS OF STRIKES BY CAUSES, 1889 TO 1893—Concluded.

Cause or object.	Year.	Succeeded.	Succeeded partly.	Failed.	Not reported.	Total.
Against employment of nonunion men, and for adoption or enforcement of union rules, etc.	1889	5	2	17	5	29
	1890	30	4	56	10	100
	1891	24	5	50	5	84
	1892	24	3	27	5	59
	1893	32	9	32	1	74
Total	.....	115	23	182	26	346
Disputes between classes of work people as to work, wages, etc.	1889	9	4	3	2	18
	1890	6	7	12	.....	25
	1891	12	7	10	2	31
	1892	7	4	5	2	18
	1893	18	11	14	2	45
Total	.....	52	33	44	8	137
Defense of or objection to fellow work people (apart from unionism).	1889	7	6	12	4	29
	1890	9	1	23	2	35
	1891	10	11	14	1	36
	1892	14	4	19	2	39
	1893	5	6	15	2	28
Total	.....	45	28	83	11	167
Defense of or objection to superior officials	1889	3	1	11	.....	15
	1890	2	4	5	2	13
	1891	3	3	6	4	16
	1892	10	.....	4	1	15
	1893	8	.....	5	1	14
Total	.....	26	8	31	8	73
In sympathy with other strikes and disputes	1889	.....	7	5	8	20
	1890	4	1	12	2	19
	1891	.....	1	4	2	7
	1892	.....	.....	1	1	2
	1893	1	1	6	2	10
Total	.....	5	10	28	15	58
Cause not known	1889	.....	.....	2	3	5
	1890	1	1	1	7	10
	1891	1	1	4	11	17
	1892	.....	.....	.....	7	7
	1893	.....	.....	.....	.....	.....
Total	.....	2	2	7	28	39
All causes	1889	476	368	207	94	1,145
	1890	384	230	322	92	1,028
	1891	369	181	263	80	893
	1892	283	117	228	64	692
	1893	303	159	264	42	768
Total	.....	1,815	1,055	1,284	372	4,526

The vast majority of the labor troubles in the United Kingdom have their origin in disputes as to wages. Chiefly they are differences as to amount of wages, although sometimes they are disputes concerning the principle or mode of payment, or of altered systems of work affecting the amount or mode of payment. Considering the total for five years it appears that over half, or 59.5 per cent, of all the strikes were caused by questions concerning the advance or reduction of wages, and that of the strikes for this object 42.7 per cent were successful, 27.9 per cent partly successful, 21 5 per cent unsuccessful, and for 7.9 per cent the result was not reported. Of the total number of strikes for all purposes that occurred during the five years 40.1 per cent were successful, 23.3 per cent partly successful, 28.4 per cent unsuccessful, and for 8.2 cent the result was not reported.

In connection with the success or failure of strikes it is instructive to consider the number of persons affected. While the number of persons affected is not shown for all of the strikes reported, it is given for a sufficient number to indicate the relative number of persons affected by the disturbances that terminated successfully or otherwise for the workmen, and a summary of the totals for the different years is as follows:

PERSONS AFFECTED BY STRIKES, 1889 TO 1893, BY RESULTS.

[Persons affected means persons thrown out of work, whether actually striking or not.]

Result.	Year.	Total strikes.	Strikes for which persons affected were reported.	
			Number.	Persons affected.
Succeeded	1889	476	304	93,524
	1890	384	275	213,867
	1891	369	289	68,247
	1892	283	235	48,852
	1893	303	271	400,141
Total		1,815	1,374	824,631
Succeeded partly	1889	368	274	177,476
	1890	230	188	66,029
	1891	181	156	98,127
	1892	117	103	113,414
	1893	159	148	155,249
Total		1,055	869	610,295
Failed	1889	207	171	40,472
	1890	322	254	101,902
	1891	263	212	92,763
	1892	228	203	70,978
	1893	264	233	76,430
Total		1,284	1,073	382,545
Not reported	1889	94	32	10,528
	1890	92	21	11,183
	1891	80	19	7,748
	1892	64	27	3,554
	1893	42	13	1,709
Total		372	112	34,722
Aggregate	1889	1,145	781	322,000
	1890	1,028	738	392,981
	1891	893	676	266,885
	1892	692	568	236,798
	1893	768	665	633,529
Total		4,526	3,428	1,852,193

Of the 4,526 strikes that occurred during the five years covered by this statement, particulars concerning the number of persons affected and the results were obtained for 3,428, or 75.7 per cent. These strikes affected 1,852,193 persons. The strikes that terminated successfully affected 44.5 per cent of the total number of persons; those that succeeded partly, 32.9 per cent; unsuccessful, 20.7 per cent, and those for which the result was not reported, 1.9 per cent. The successful and partly successful strikes combined affected 77.4 per cent of the total number of persons. The average number of persons affected by each of the successful or partly successful strikes was 640, by the unsuccessful strikes 357, and by the strikes for which definite information as to the result was not obtained 310.

The time over which industrial stoppages extend, when considered in connection with the number of persons affected, conveys an idea of the magnitude of the disturbances. The statistics on this subject for the different years are presented in the following statement:

DURATION OF STRIKES, 1889 TO 1893.

Year.	Total strikes.	Strikes for which duration was reported.		
		Number.	Days of duration.	
			Number.	Average per strike.
1889	1,145	840	15,100	18.0
1890	1,028	794	13,724	17.3
1891	893	687	16,528	24.1
1892	692	555	17,800	32.1
1893	768	575	16,927	29.4
Total	4,526	3,451	80,079	23.2

The number of really large strikes is shown by the following analysis: In 1891 there were 9 strikes, of those reporting the number of persons affected, in which 5,000 persons and upward were involved; 45 in which 1,000 to 5,000 persons were affected, and 622 in which less than 1,000 persons were affected. The Report by the Chief Labor Correspondent on the Strikes and Lockouts of 1892 reports for that year but 8 strikes and lockouts affecting 5,000 persons and upward, 34 affecting 1,000 to 5,000, and 530 affecting less than 1,000. In 1893, 10 strikes and lockouts involved 5,000 persons and upward, 31 from 1,000 to 5,000, and 638 less than 1,000.

The number of persons affected by labor disputes, and the duration of such disputes, though interesting in themselves, become more important when brought into relation with each other. This has been done for both strikes and lockouts in the statements which follow so as to show the average days of time lost by the persons affected.

TIME LOST AND PERSONS AFFECTED BY STRIKES AND LOCKOUTS, 1890 TO 1893.

[Persons affected means persons thrown out of work.]

Year.	Total strikes and lockouts.	Strikes and lockouts for which both persons affected and lost time were reported.			
		Number.	Persons affected.	Days of lost time.	
				Number.	Average per person affected
1890	1,040	652	373,650	7,317,469	19.5
1891	906	606	258,718	6,809,371	26.3
1892	700	503	351,243	17,248,376	49.1
1893	782	586	627,969	31,205,062	49.7
Total	3,428	2,347	1,611,580	62,580,278	38.8

DURATION OF AND PERSONS AFFECTED BY STRIKES AND LOCKOUTS IN 1893, BY INDUSTRIES.

[Persons affected means persons thrown out of work.]

Industries.	Total strikes and lock-outs.	Strikes and lockouts for which both persons affected and duration were reported.					
				Days of duration.		Days of lost time.	
		Number.	Persons affected.	Number.	Average per dispute.	Number.	Average per person affected
Building and furnishing trades, coach making and coopers	198	155	19,976	5,882	37.9	866,971	43.4
Clothing (including saddle and harness trade)	82	59	10,266	1,885	31.9	204,513	19.9
Domestic (a)	25	16	5,529	501	31.3	388,569	70.3
Labor (b)	30	19	1,247	134	7.0	7,646	6.1
Metal (including shipbuilding, engineering, etc.)	136	113	29,662	3,802	33.6	863,578	29.1
Mining and quarrying	156	110	501,724	3,063	27.8	27,977,893	55.7
Printing, paper, and book trades	7	4	286	116	29.0	7,119	24.9
Textile trades	105	80	44,790	1,583	19.8	422,184	9.4
Transport (land and water)	43	30	14,489	370	12.3	466,589	32.2
Total	782	586	627,969	17,336	29.6	31,205,062	49.7

a Comprises food and drink preparation, tobacco, brush makers, and glass and pottery trades.
b Comprises chemical and gas workers, public cleansing, agricultural, general, unskilled, and female labor.

In the majority of cases the largest disputes in point of numbers were also those for which the duration was the longest. For this reason the average duration per dispute is considerably less than the average number of working days lost per person involved.

With one exception the preceding statements have presented the statistics by totals for years only. In the following summary the strikes and lockouts of the four years from 1890 to 1893 are arranged by general groups of trades. This statement shows the number of disturbances in each group, the number for which the persons affected were reported, and the number of persons affected by such strikes and lockouts.

PERSONS AFFECTED BY STRIKES AND LOCKOUTS, 1890 TO 1893, BY INDUSTRIES.

[Persons affected means persons thrown out of work. It will be noticed that the figures reported below do not agree in every case with the figures given on page 30. The explanation is not known.]

Industries.	Total strikes and lockouts.				Strikes and lockouts for which persons affected were reported.								Average persons affected per dispute.
					Number.				Persons affected.				
	1890.	1891.	1892.	1893.	1890.	1891.	1892.	1893.	1890.	1891.	1892.	1893.	
Building trades	117	149	149	170	83	123	115	152	12,558	25,229	18,175	17,738	156
Chemical and gas works	10	4	3	5	7	4	3	5	1,218	118	193	427	103
Cabinetmaking and furniture trades	18	18	9	20	15	11	7	15	2,142	317	312	366	65
Clothing trades	78	66	56	80	47	55	49	71	29,317	40,992	36,431	10,821	530
Coach building and coopers	5	9	6	8	3	8	5	6	200	680	477	2,495	175
Domestic trades	10	11	8	5	5	7	6	5	487	627	425	56	69
Food, tobacco, and drink preparation	21	18	12	9	18	17	12	9	3,704	3,271	1,516	549	161
Glass and pottery trades	11	12	8	11	6	10	7	10	3,070	3,534	20,369	5,211	975
Labor (agricultural and general unskilled)	29	18	19	25	21	11	12	17	2,293	1,967	1,031	958	102
Leather and rubber trades	11	5	5	2	9	3	5	2	498	165	717	30	74
Metal trades (including shipbuilding)	201	165	129	136	149	123	108	124	81,936	60,502	39,759	30,309	422
Mining and quarrying	101	132	109	156	80	96	86	133	140,292	51,427	129,386	506,182	2,072
Paper, printing, and bookbinding trades	11	20	7	7	8	14	7	7	356	1,291	708	381	76
Textile trades	241	217	137	105	183	164	117	89	42,035	44,837	102,722	45,274	425
Transport	164	62	41	43	105	42	35	34	72,875	32,499	12,878	15,589	620
Theatrical employees	.....	.....	2	.....	.....	.....	2	.....	.....	.....	700	.....	350
Total	1,028	906	700	782	739	688	576	679	392,981	267,460	356,799	636,386	617

Considering the totals for the four years, the greatest number of disturbances are reported for the textile trades, while those involving the greatest number of employees are in mining and quarrying. The textiles rank second in the number of persons affected, the metal trades second in number of disturbances and third in number of persons affected, the building trades third in number of disturbances and fourth in number of persons affected, while mining and quarrying, the first in the number of persons, is fourth in number of disturbances. The magnitude of the average disturbance in the different trades is also indicated in the above statement by the average number of persons affected, the average being obtained from the totals of the four years. The disturbances in the mining and quarrying industries affected, on an average, the largest number of persons, and were followed in point of magnitude by the glass and pottery trades.

Having presented data as to the number, magnitude, and immediate results of strikes, the statistics next in order are those pertaining to the modes of settling the disputes. The different methods of settling

strikes and the number of persons affected by each class during 1891, 1892, and 1893 are shown in the following summary:

MODE OF SETTLEMENT OF STRIKES, 1891 TO 1893.

[Persons affected means persons thrown out of work, whether actually striking or not.]

Mode of settlement.	Year.	Strikes settled.		
		Number.	Strikes for which persons affected were reported.	
			Number.	Persons affected.
By conciliation	1891	468	373	120,579
	1892	341	283	55,763
	1893	388	347	132,393
By conciliation (by mediation)	1891	9	9	9,464
	1892	4	4	76,144
	1893	8	8	300,622
By arbitration	1891	18	15	12,387
	1892	19	17	32,637
	1893	25	24	12,124
By submission of work people	1891	130	103	65,724
	1892	115	108	37,224
	1893	119	104	63,676
By hands being replaced	1891	87	67	6,149
	1892	79	66	3,729
	1893	104	90	4,273
By conciliation and submission	1891	41	36	20,249
	1892	33	30	21,996
	1893	44	43	114,277
By conciliation and hands being replaced	1891	11	9	1,927
	1892	13	11	1,748
	1893	6	6	803
By submission and hands being replaced	1891	39	37	20,410
	1892	22	20	3,891
	1893	22	20	1,977
By disappearance or withdrawal of cause of dispute without mutual agreement.	1891	12	9	2,268
	1892	2	2	112
	1893	3	3	425
Indefinite: no details obtainable as to settlement, or establishment closed.	1891	78	18	7,728
	1892	64	27	3,554
	1893	49	20	2,959

Much the larger proportion of the strikes for each of the three years covered by this statement were settled by conciliation. Next to conciliation the greatest number of strikes, according to the classification adopted, appear to have been settled by the submission of the work people.

While the available information concerning loss or gain resulting from strikes is not as complete as could be desired, the information secured is of value when considered in connection with the other statistics on this general subject. According to returns received from employers with regard to the cost of strikes in 1893, there were 257 strikes which directly affected (a) 139,168 persons whose weekly wages

a What the distinction is between those directly affected and those indirectly affected is not made clear, but it is believed that the former expression refers to strikers only, and the latter to others thrown out of employment in consequence of the strike.

before the strikes amounted to $863,045, and 43 strikes which indirectly affected 18,714 persons whose weekly wages before the strikes amounted to $124,904. In 123 strikes, affecting 120,127 persons, an estimated fixed capital of $78,522,559 was laid idle, and 80 strikes, affecting 104,811 persons, laid idle property whose estimated ratable value was $3,416,911. In 109 strikes, affecting 135,230 persons, the estimated outlay by employers in stopping and reopening works and in payment of fixed charges and salaries was $1,676,354, and the cost to employers in resisting 6 strikes, affecting 8,487 persons, was $34,980.

Reports from trade unions relating to loss and gain from strikes indicate that in 1893 there were 265 strikes, affecting 239,898 persons, whose weekly wages before the strikes amounted to $1,260,107. Weekly wages both before and after the strikes were reported for 209 strikes, affecting 236,527 persons, whose weekly wages were $1,237,931 before and $1,287,554 after the strikes. In 73 strikes the weekly gain in wages to the 116,249 persons affected was $39,024, and in 21 strikes the weekly reduction to the 2,523 persons affected was $1,557. In 224 strikes, which affected 223,679 persons, the estimated wage loss during the strikes was $8,952,929, the amount expended by trade unions in support of 240 strikes affecting 92,608 persons was $617,457, and the amount expended from other than trade-union funds in support of 37 strikes, affecting 21,171 persons, was $119,701. In 313 strikes 88,940 of the number affected belonged to trade unions.

The statistics for lockouts have, of necessity, been included in some of the preceding statements presenting the data for strikes. In some instances it was practically impossible to obtain a separation of the persons affected by the lockout from those affected by the strike; therefore the statistics for lockouts as a distinct class of labor disturbances are not as complete as may be desired. The following statement gives the number of persons affected by and the duration of the lockouts in the United Kingdom, so far as reported, for the years 1891, 1892, and 1893:

DURATION OF AND PERSONS AFFECTED BY LOCKOUTS, 1891 TO 1893.

[Persons affected means persons thrown out of work.]

Year.	Total lockouts.	Lockouts for which persons affected were reported.			Lockouts for which duration was reported.		
		Number.	Persons affected.	Average persons affected per lockout.	Number.	Days of duration.	Average days of duration per lockout.
1891	13	11	575	52	6	224	37.3
1892	8	8	120,001	15,000	6	186	31.0
1893	14	14	2,857	204	11	409	37.2
Total	35	33	123,433	3,740	23	819	35.6

The prevailing causes or objects of lockouts and the manner of their termination, i. e., whether successful or otherwise from the employers' point of view, are shown by the following statement:

RESULTS FOR LOCKOUTS BY CAUSES, 1891 TO 1893.

Cause or object.	Year.	Succeeded.	Succeeded partly.	Failed.	Not reported.	Total.
Against advance of wages and other demands	1891	1	1	2	.....	4
	1892	.....	.....	.....	.....	.....
	1893	1	1	.....	.....	2
To enforce a reduction of wages	1891	2	.....	.....	.....	2
	1892	.....	1	.....	.....	1
	1893	1	.....	.....	.....	1
Against, or to enforce alteration of working arrangements, rules, methods of payment, foreign materials, short time, etc.	1891	2	.....	.....	.....	2
	1892	.....	1	3	1	5
	1893	2	4	1	.....	7
Unionism, as to employment of union or nonunion men, union rates of wages, etc.	1891	4	.....	1	.....	5
	1892	1	.....	.....	.....	1
	1893	3	1	.....	.....	4
To end a long-standing strike	1892	.....	.....	1	.....	1
All causes	1891	9	1	3	.....	13
	1892	1	2	4	1	8
	1893	7	6	1	.....	14
Total	.....	17	9	8	1	35

In 17 of the 35 lockouts reported for the three years the employers accomplished the object for which the lockout was organized, in 8 lockouts they failed, in 9 cases they were partly successful, there being 1 lockout for which the result was not reported.

According to returns received from employers with regard to the cost of lockouts in 1893 there were 6 lockouts which directly affected 837 persons whose weekly wages before the lockouts amounted to $7,144. In 1 lockout, affecting 637 persons, an estimated capital of $121,663 was laid idle, and 2 lockouts, affecting 664 persons, laid idle property whose estimated ratable value was $39,467. In 3 lockouts, affecting 772 persons, the cost to the employers in stopping and reopening works, and in payment of fixed charges and salaries, was $1,898.

Reports from trade unions relating to loss and gain from lockouts indicate that in 1893 there were 7 lockouts, affecting 1,763 persons, whose weekly wages before the lockouts amounted to $13,436. Weekly wages both before and after the lockouts were reported for 5 lockouts, affecting 1,437 persons, whose weekly wages were $10,604 before and $11,392 after the lockouts. In 1 lockout the weekly gain in wages to the 650 persons affected was $788. In 5 lockouts, affecting 1,743 persons, the estimated wage loss during the lockouts was $48,874, the amount expended by trade unions in defense against 5 lockouts, affecting 778 persons, was $15,680, and the amount expended from other than trade-union funds in defense against 2 lockouts, affecting 364 persons, was $112. In 9 lockouts 1,706 of the number affected belonged to trade unions.

STRIKES IN FRANCE IN RECENT YEARS.

The report of the French Office du Travail, Statistique des Grèves et des Recours à la Conciliation et à l'Arbitrage Survenus Pendant l'Année, 1894, gives some interesting figures as the result of its annual inquiry into the subject of strikes and lockouts in France. The report shows that during 1894 there were 391 strikes, involving 1,731 establishments and 54,576 strikers, and a loss of work on the part of the strikers and their fellow-employees amounting to 1,062,480 days. In 1893 there were strikes affecting 4,286 establishments and 170,123 strikers. The loss to employees reached 3,174,000 working days.

In 1894, out of the total of 391 strikes, 84, or 21.48 per cent of them, succeeded; 129, or 32.99 per cent, succeeded partly, and 178, or 45.53 per cent, failed entirely. In 1893 the proportions were: 158 strikes, or 24.92 per cent, succeeded; 206, or 32.49 per cent, succeeded partly, and 270, or 42.59 per cent, failed. In 1894, taking into account the number of strikers involved, 23.63 per cent of the strikers succeeded, 45.41 per cent succeeded partly, and 30.96 per cent failed. In 1893 the proportions in regard to number of strikers were 21.27 per cent, 26.36 per cent, and 52.37 per cent, respectively.

Of the strikes reported in 1894, in 295 cases but 1 establishment was involved; in 32 cases from 2 to 5 establishments were involved; in 18 cases from 6 to 10 establishments; in 26 cases from 11 to 25; in 17 cases from 26 to 50; in 2 cases from 51 to 100, and in 1 case 125.

The two following tables summarize the strikes and strikers for 1894, classifying them by industries and by results. The first table shows for each industry the number of strikes and the number of establishments involved, classifying them according as the strikes succeeded, succeeded partly, or failed. The total strikes and establishments are also shown. The second table shows for each industry the number of strikers, classifying them according as they were involved in successful strikes, partly successful strikes, or in strikes that failed. The total strikers and days of work lost are also given. The column in this table headed "Days of work lost" refers here, as well as in the tables which follow, to days lost not only by strikers but by those employees who were thrown out of work by the strike.

STRIKES IN 1894, BY INDUSTRIES.

Industry.	Succeeded.		Succeeded partly.		Failed.		Total.	
	Strikes.	Establishments.	Strikes.	Establishments.	Strikes.	Establishments.	Strikes.	Establishments.
Agriculture, forestry, and fisheries	5	16	13	36	3	13	21	65
Mining	2	2	4	4	1	1	7	7
Quarrying	5	15	4	17	4	5	13	37
Food products	.....	.....	4	50	4	29	8	79
Chemical industries	2	3	4	5	5	5	11	13
Printing	1	1	1	1	8	8	10	10
Hides and leather	7	80	10	11	11	87	28	178
Textiles proper	13	67	44	140	55	126	112	333
Clothing and cleaning	2	2	5	49	3	21	10	72
Woodworking	6	45	5	19	11	19	22	83
Building trades (woodwork)	2	34	5	90	2	13	9	137
Metal refining	1	1	2	2	.....	.....	3	3
Metallic goods	10	41	10	28	28	46	48	115
Precious-metal work	2	2	.....	.....	1	1	3	3
Stonecutting and polishing, glass and pottery works	5	23	3	35	12	17	20	75
Building trades (stone, earthenware, glass, etc.)	18	105	14	225	23	94	55	424
Transportation and handling	3	22	1	1	7	74	11	97
Total	84	459	129	713	178	559	391	1,731

STRIKERS IN 1894, BY INDUSTRIES.

Industry.	In successful strikes.	In partly successful strikes.	In strikes which failed.	Total strikers.	Days of work lost.
Agriculture, forestry, and fisheries	530	1,255	628	2,413	23,003
Mining	150	2,415	200	2,765	178,964
Quarrying	427	620	380	1,427	13,216
Food products	.....	143	178	321	1,237
Chemical industries	850	781	926	2,557	7,088
Printing	10	65	86	161	3,413
Hides and leather	1,567	507	2,554	4,628	47,086
Textiles proper	4,044	14,549	4,868	23,461	308,225
Clothing and cleaning	130	235	630	995	50,524
Woodworking	518	265	423	1,206	26,151
Building trades (woodwork)	108	396	32	536	10,197
Metal refining	18	1,198	.....	1,216	57,112
Metallic goods	583	521	873	1,977	36,758
Precious-metal work	8	.....	11	19	301
Stonecutting and polishing, glass and pottery works	2,268	74	1,459	3,801	266,978
Building trades (stone, earthenware, glass, etc.)	1,466	1,740	2,752	5,958	29,763
Transportation and handling	220	20	895	1,135	2,464
Total	12,897	24,784	16,895	54,576	1,062,480

From these tables it appears that the textile industries proper had the greatest number of strikes during the year, 112, or nearly 30 per cent of the whole number—building trades (stone, earthenware, glass, etc.) following with 55, and metallic goods with 48. Judged by importance of the disturbances as shown by the number of strikers and days of work lost, the textile industries proper still lead with 23,461 strikers and 308,225 days lost. According to number of strikers, building trades (stone, earthenware, glass, etc.) come second with 5,958 strikers, and hides and leather third with 4,628 strikers. According to days of work lost, however, stonecutting and polishing, glass and pottery works come second, and mining, which had but 7 strikes, comes third.

The following summaries, by causes, show for each cause the same facts that in the preceding tables were shown for each industry:

STRIKES IN 1894, BY CAUSES.

Cause or object.	Succeeded.		Succeeded partly.		Failed.		Total.	
	Strikes.	Establishments.	Strikes.	Establishments.	Strikes.	Establishments.	Strikes.	Establishments.
For increase of wages	37	290	69	604	73	215	179	1,109
Against reduction of wages	18	50	28	28	34	83	80	161
For increase of hours of labor	2	2	.....	.....	1	17	3	19
For reduction of hours of labor, with present or increased wages	12	145	6	61	12	105	30	311
Relating to time and method of payment of wages, etc	4	5	2	2	3	34	9	41
For or against modification of conditions of work	8	49	6	34	19	138	33	221
Against piecework	4	5	3	5	2	2	9	12
For or against modification of shop rules	2	2	3	3	3	3	8	8
For abolition or reduction of fines	2	2	4	4	5	5	11	11
Against discharge of workmen, foremen, or directors, or for their reinstatement	3	3	6	10	19	37	28	50
For discharge of workmen, foremen, or directors	14	16	2	2	34	35	50	53
Against the employment of women	1	1	.....	.....	4	4	5	5
For discharge of apprentices or limitation in number	.....	.....	.....	.....	2	2	2	2
To support the demands of neighboring woodcutters	1	1	.....	.....	.....	.....	1	1
Total (a)	108	571	129	753	211	680	448	2,004

a A considerable number of strikes were due to two or three causes, and the facts in such cases have been tabulated under each cause. Hence the totals for this table necessarily do not agree with those for the table on the preceding page.

STRIKERS IN 1894, BY CAUSES.

Cause or object.	In successful strikes.	In partly successful strikes.	In strikes which failed.	Total strikers.	Days of work lost.
For increase of wages	7,664	16,602	6,434	30,700	601,899
Against reduction of wages	3,620	2,979	2,662	9,261	150,655
For increase of hours of labor	430	.....	306	736	1,386
For reduction of hours of labor, with present or increased wages	1,044	385	951	2,380	38,392
Relating to time and method of payment of wages, etc	198	116	337	651	4,622
For or against modification of conditions of work	1,486	316	4,540	6,342	243,734
Against piecework	324	288	215	827	14,045
For or against modification of shop rules	53	128	148	329	1,875
For abolition or reduction of fines	103	507	384	994	6,353
Against discharge of workmen, foremen, or directors, or for their reinstatement	662	2,551	2,008	5,221	246,609
For discharge of workmen, foremen, or directors	1,601	210	4,376	6,187	239,536
Against the employment of women	30	.....	193	223	5,978
For discharge of apprentices or limitation in number	.....	.....	32	32	489
To support the demands of neighboring woodcutters	30	.....	.....	30	90
Total (a)	17,245	24,082	22,586	b 56,813	1,555,663

a A considerable number of strikes were due to two or three causes, and the facts in such cases have been tabulated under each cause. Hence the totals for this table necessarily do not agree with those for the table on the preceding page.

b Figures here apparently should be 63,913; those given are, however, according to the original.

It will be seen that more than one-half of all the strikes were caused by some difference in regard to wages, 179 being for an increase of wages and 80 being against a reduction of wages. Strikes for a reduc-

tion in the hours of labor were comparatively few, there being but 30 such during the year.

The number of strikers per 1,000 working people employed in each industry (according to the census of 1891) is shown in another short table as follows:

STRIKERS PER 1,000 EMPLOYEES IN 1894, BY INDUSTRIES.

Industry.	Strikes.	Strikers.	Strikers per 1,000 work people.	Days of work lost.
Agriculture and forestry (woodmen and charcoal burners only)	21	2,413	33.63	23,003
Mining	7	2,765	20.23	178,964
Quarrying	13	1,427		13,216
Food products	8	321	2.50	1,237
Chemical industries	11	2,557	69.89	7,088
Printing	10	161	1.66	3,413
Hides and leather	28	4,628	37.16	47,086
Textiles proper	112	23,461	22.65	308,225
Clothing and cleaning	10	995	1.41	50,524
Woodworking	22	1,206	13.07	26,151
Building trades (woodwork)	9	536	(a)	10,197
Metal refining	3	1,216	12.74	57,112
Metallic goods	48	1,977	6.51	36,758
Precious metal work	3	19	.....	301
Stonecutting and polishing, glass and pottery works	20	3,801	36.54	266 978
Building trades (stone, earthenware, glass, etc.)	55	5,958	b 15.08	29,763
Transportation and handling	11	1,135	4.61	2,464
Total	391	54,576	19.83	1,062,480

a Included with building trades (stone, earthenware, glass, etc.).
b Includes building trades (woodwork).

This table shows perhaps better than any other the relative amount of disturbances in the various industries. It will be seen that in all industries shown, 19.83 out of every 1,000 persons employed were engaged in strikes during the year. In textile industries proper, where are found nearly 30 per cent of all the strikes, are found 22.65 strikers per 1,000 employees, a slight excess over the average of all industries, while in building trades (stone, earthenware, glass, etc.) and metallic goods, respectively second and third as regards number of strikes, are found but 15.08 and 6.51 strikers per 1,000 employees.

The strikes and strikers, classified by results and by the duration of the strikes, are presented in the table which follows:

STRIKES AND STRIKERS, BY DURATION OF STRIKES, 1894.

Days of duration.	Strikes.				Strikers.			
	Succeeded.	Succeeded partly.	Failed.	Total.	Succeeded.	Succeeded partly.	Failed.	Total.
7 or under	58	72	102	232	a 8,501	7,722	8,270	24,713
8 to 15	14	34	34	82	1,796	4,298	2,587	8,681
16 to 30	6	10	20	36	234	2,024	3,353	5,611
31 to 100	5	12	18	35	2,076	9,075	1,435	12,586
101 or over	1	1	4	6	70	1,665	1,250	2,985
Total	84	129	178	391	12,897	24,784	16,895	54,576

a Figures here apparently should be 8,721; those given are, however, according to the original.

It will be seen that most of the strikes, whether successful or not, are of short duration. Nearly 60 per cent in 1894 lasted but a week or less, and only about 10 per cent were of more than a month's duration.

Duration of strikes is presented in another way in the following short table. The strikes are here classified according to number of strikers involved, and for each group the results and days of duration are shown.

DURATION OF STRIKES IN 1894, BY NUMBER OF STRIKERS INVOLVED.

Strikers involved.	Strikes.				Days of duration.				
	Succeeded.	Succeeded partly.	Failed.	Total.	1 to 7.	8 to 15.	16 to 30.	31 to 100.	101 or over.
25 or under	21	27	71	119	75	20	11	12	1
26 to 50	16	28	34	78	49	18	7	4	.....
51 to 100	23	36	35	94	58	16	9	9	2
101 to 200	10	21	22	53	26	16	6	4	1
201 to 500	10	10	10	30	16	12	.....	2	.....
501 to 1,000	2	1	4	7	6	.....	1	.....	.....
1,001 to 5,000	2	5	2	9	2	.....	2	3	2
5,001 or over	.....	1	.....	1	.....	.....	.....	1	.....
Total	84	129	178	391	232	82	36	35	6

This table shows that a large number of the strikes are not only of short duration, but that they are small as regards number of strikers involved. In 119 cases 25 strikers or less were involved, and in 291 cases, 100 strikers or less.

Earlier reports of the Office du Travail give the facts for the years 1890 to 1893. A comparison of the figures for the several years shows a considerable variation in the number and importance of labor disturbances during the several years presented.

The first of the following tables gives the facts, so far as reported, as to number of strikes, establishments involved, strikers, and days of work lost for the years 1890 to 1894.

STRIKES, ESTABLISHMENTS, STRIKERS, AND DAYS OF WORK LOST, 1890 TO 1894.

Year.	Strikes.	Establishments.	Strikers.	Days of work lost.
1890	313	*a* 813	*b* 118,929	.....
1891	267	*c* 402	*d* 108,944	.....
1892	261	*e* 466	*f* 47,903	920,000
1893	634	4,286	170,123	3,174,000
1894	391	1,731	54,576	1,062,480
Total	1,866	7,698	500,475	5,156,480

a In 33 strikes the number of establishments was not reported.
b In 8 strikes the number of strikers was not reported.
c In 24 strikes the number of establishments was not reported.
d In 2 strikes the number of strikers was not reported.
e In 16 strikes the number of establishments was not reported.
f In 8 strikes the number of strikers was not reported.

A second table shows the number and per cent of strikes which succeeded, succeeded partly, and failed in each of the years of the same period, 1890 to 1894.

NUMBER AND PER CENT OF STRIKES BY RESULTS, 1890 TO 1894.

Year.	Succeeded.		Succeeded partly.		Failed.		Not reported.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1890	82	26.20	64	20.45	161	51.44	6	1.91	313	100
1891	91	34.08	67	25.10	106	39.70	3	1.12	267	100
1892	56	21.46	80	30.65	118	45.21	7	2.68	261	100
1893	158	24.92	206	32.49	270	42.59	.....	.....	634	100
1894	84	21.48	129	32.99	178	45.53	.....	.....	391	00
Total	471	25.24	546	29.26	833	44.64	16	.86	1,866	100

The per cent of successful strikes during the five years reported varies from 21.48 in 1894 to 34.08 in 1891, and the average for the period is 25.24 per cent. The average of those which succeeded partly is 29.26 per cent and of those which failed 44.64 per cent.

The last table deals with strikers in the same way. It shows the number and per cent of strikers who were involved in strikes which succeeded, succeeded partly, and failed.

NUMBER AND PER CENT OF STRIKERS, BY RESULTS OF STRIKES, 1890 TO 1894.

Year.	In successful strikes.		In partly successful strikes.		In strikes that failed.		Not reported.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1890	13,361	11.23	28,013	23.55	76,075	63.97	1,480	1.25	118,929	100
1891	22,449	20.61	54,237	49.78	32,109	29.47	149	.14	108,944	100
1892	9,774	20.40	23,820	49.73	14,179	29.60	130	.27	47,903	100
1893	36,186	21.27	44,836	26.36	89,101	52.37	.....	.....	170,123	100
1894	12,897	23.63	24,784	45.41	16,895	30.96	.....	.....	54,576	100
Total	94,667	18.92	175,690	35.10	228,359	45.63	1,759	.35	500,475	100

STRIKES IN ITALY IN RECENT YEARS.

The Statistica degli Scioperi avvenuti nell' Industria e nell' Agricoltura durante gli anni 1892 e 1893 furnishes the data for the accompanying statement concerning strikes in Italy in recent years.

The number of these industrial disturbances during each of the years from 1879 to 1893 is shown in the following table, together with the number of strikers involved in strikes reporting as to number involved:

NUMBER OF STRIKES AND STRIKERS, 1879 TO 1893.

Year.	Strikes.		Strikers.		Year.	Strikes.		Strikers.	
	Total.	Reporting number of strikers.	Total.	Average per strike.		Total.	Reporting number of strikers.	Total.	Average per strike.
1879	32	28	4,011	143	1887	69	68	25,027	368
1880	27	26	5,900	227	1888	101	99	28,974	293
1881	44	39	8,272	212	1889	126	125	23,322	187
1882	47	45	5,854	130	1890	139	133	38,402	289
1883	73	67	12,900	193	1891	132	128	34,733	271
1884	81	81	23,967	296	1892	119	117	30,800	263
1885	89	86	34,166	397	1893	131	127	32,109	253
1886	96	96	16,951	177					

During the last two years included in the table strikes occurred with greater frequency in Lombardy and Piedmont than in any other of the provinces of Italy, they being the centers of industrial activity. In Sicily, however, quite a large number occurred also. These were confined mostly to the sulphur mines, where almost the whole of the workmen struck and where the difficulties were most frequent.

The distribution of the strikes as to the causes for which undertaken for the period from 1878 to 1891, for 1892, and for 1893 is shown in the following table:

CAUSES OF STRIKES, 1878-1891, 1892, AND 1893.

[In each of the years under consideration some of the strikes have been omitted, neither cause of strike nor number of strikers having been reported.]

Cause or object.	1878-1891.				1892.				1893.			
	Strikes.		Strikers.		Strikes.		Strikers.		Strikes.		Strikers.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
For increase of wages	522	52	152,908	60	39	34	6,642	22	51	42	13,386	42
For reduction of hours	70	7	10,064	4	4	3½	1,790	6	11	9	1,519	5
Against reduction of wages	110	11	23,207	9	23	20	7,551	25	22	18	3,931	12
Against increase of hours	20	2	5,646	2	4	3½	630	2	1	1	300	1
Other causes	276	28	62,843	25	44	39	13,571	45	36	30	12,492	40
Total classified	998	100	254,668	100	114	100	30,184	100	121	100	31,628	100
Not classified	77	.....	.....	.....	5	.....	.....	.....	10	.....	.....	.....
Grand total	1,075	.....	.....	.....	119	.....	.....	.....	131	.....	.....	.....

In the last of the five groups are combined many causes, among which may be mentioned the following: Differences as to manner of payment of wages, whether weekly or fortnightly, etc.; as to the amount and methods of fines; as to cooperation of strikers; as to special technical conditions, etc. The per cent columns bring out very clearly the proportion of strikes falling under each cause. During the period from 1878 to 1891 64 per cent of the strikers engaged in strikes for the purpose of ameliorating their condition, while in 1892 28 per cent and in 1893 47 per cent of all persons involved were engaged in such strikes. On the other hand, only 11 per cent of the strikers were engaged in struggles to prevent a decrease of wages for the period from 1878 to 1891, 27 per cent in 1892, and only 13 per cent in 1893.

The table which follows shows the results of strikes for the period from 1878 to 1891, for 1892, and for 1893, so far as the strikers were concerned, classifying the strikes as having succeeded, partly succeeded, or failed in the object or cause for which they were undertaken.

RESULTS OF STRIKES, 1878-1891, 1892, AND 1893.

[In each of the years under consideration some of the strikes have been omitted, neither cause of strike nor number of strikers having been reported.]

Cause or object.	Succeeded.				Succeeded partly.				Failed.			
	Strikes.		Strikers.		Strikes.		Strikers.		Strikes.		Strikers.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
For increase of wages:												
1878-1891	88	17	43,931	29	242	46	74,650	49	192	37	34,327	22
1892	9	23	1,078	16	13	33	2,050	31	17	44	3,514	53
1893	15	30	6,071	45	18	35	4,713	35	18	35	2,602	20
For reduction of hours:												
1878-1891	14	20	3,612	36	28	40	2,449	24	28	40	4,003	40
1892	1	25	1,500	84	1	25	40	2	2	50	250	14
1893	5	46	581	38	4	36	815	54	2	18	123	8
Against reduction of wages:												
1878-1891	14	13	2,700	12	47	43	11,744	50	49	44	8,763	38
1892	7	30	3,660	48	7	30	1,628	22	9	40	2,263	30
1893	5	23	840	21	10	45	1,341	34	7	32	1,750	45
Against increase of hours:												
1878-1891	7	35	2,540	45	8	40	2,750	49	5	25	356	6
1892	.....	.....	.....	.....	2	50	350	56	2	50	280	44
1893	.....	.....	.....	.....	1	100	300	100	.....	.....	.....	.....
Other causes:												
1878-1891	36	13	9,553	15	104	38	27,441	44	136	49	25,849	41
1892	7	16	2,398	18	10	23	1,764	13	27	61	9,409	69
1893	9	25	1,705	14	13	36	6,601	53	14	39	4,186	33
All causes:												
1878-1891	159	16	62,336	24	429	43	119,034	47	410	41	73,298	29
1892	24	21	8,636	29	33	29	5,832	19	57	50	15,716	52
1893	34	28	9,197	29	46	38	13,770	44	41	34	8,661	27

As shown by the total columns, during the years from 1878 to 1891 24 per cent of the strikers, or persons involved in strikes, succeeded in gaining the object for which they struck, 47 per cent succeeded partly, while 29 per cent failed. In 1892 29 per cent succeeded, 19 per cent succeeded partly, and 52 per cent failed, while in 1893 29 per cent succeeded, 44 per cent succeeded partly, and 27 per cent failed. The

results of strikes for any of the causes shown may be found in the same manner by reference to the table.

The classification of strikes, for 1892 and 1893, according to the industries in which strikers were engaged is shown in the following table:

STRIKES, BY INDUSTRIES, 1892 AND 1893.

Industry.	1892.			1893.		
	Strikes.		Strikers.	Strikes.		Strikers.
	Total.	Reporting number of strikers.		Total.	Reporting number of strikers.	
Weavers, spinners, and carders	41	41	7,679	44	44	14,061
Miners and ore diggers	19	19	8,280	19	18	3,840
Mechanics	3	3	568	5	5	415
Founders	1	1	70	2	2	390
Day laborers	13	12	2,026	9	9	3,960
Masons and stonecutters	5	5	1,940	6	4	380
Kiln and furnace tenders	6	6	439	2	2	250
Printers	5	5	345	1	1	10
Hat makers	3	3	306	1	1	32
Tanners	1	1	12	6	6	447
Joiners	3	3	500	.....	.....	.....
Omnibus drivers and conductors	3	3	2,470	5	5	3,627
Cart drivers	1	1	60	4	3	220
Porters and coal carriers	4	4	2,610	7	7	1,300
Other industries	11	10	3,495	20	20	3,177
Total	119	117	30,800	131	127	32,109

The textile, mineral, and metallurgic industries, and that of public works, in which most of the common labor is engaged, are more largely represented in strikes because in those industries the workmen are more generally organized.

Immediately following is shown, for a series of years, from 1879 to 1893, the total and average days lost by reason of strikes.

DAYS OF WORK LOST BY REASON OF STRIKES, 1879 TO 1893.

Year.	Strikes.		Days of work lost.		Year.	Strikes.		Days of work lost.	
	Total.	Reporting number of days lost.	Total.	Average per strike.		Total.	Reporting number of days lost.	Total.	Average per strike.
1879	32	28	21,896	782	1887	69	66	218,612	3,312
1880	27	26	91,899	3,535	1888	101	95	191,204	2,013
1881	44	38	95,578	2,515	1889	126	123	215,880	1,755
1882	47	45	25,119	558	1890	139	129	167,657	1,300
1883	73	65	111,697	1,718	1891	132	123	258,059	2,098
1884	81	78	149,215	1,913	1892	119	114	216,907	1,903
1885	89	82	244,393	2,980	1893	131	122	234,323	1,921
1886	96	95	56,772	598					

STRIKES IN AUSTRIA IN RECENT YEARS.

Volume XI of the Foreign Reports of the British Royal Commission on Labor gives the leading facts in regard to strikes in Austria during 1891 and 1892, quoting from Zusammenstellungen der in den Jahren 1891 und 1892 stattgefundenen Arbeitseinstellungen im Gewerbebetriebe, Vienna, 1892 and 1893.

The two tables immediately following are summaries of strikes by industries for the years 1891 and 1892, respectively. They show the number of strikes, establishments involved, total employees in such establishments, employees striking, and total days of work lost by strikes. These two tables show also the causes or objects for which the strikes were undertaken, classifying them under three heads, viz: For increase of wages or that and other demands, against reduction of wages, and all other. The number of strikes which succeeded, succeeded partly, and failed is also shown:

STRIKES IN 1891, BY INDUSTRIES.

[It will be observed that the addition of the items in this table will not in all cases produce the totals given. The figures, however, are all as given in the report before referred to, the original not being accessible.]

Industry.	Strikes.	Establishments.	Employees.			Cause or object.			Result.		
			Total.	Strikers.	Days lost.	For increase of wages or that and other demands.	Against reduction of wages.	All other.	Succeeded.	Succeeded partly.	Failed.
Bakers	7	444	3,068	972	a 21,855	7	.....	.....	.....	3	4
Builders	7	55	2,288	1,392	5,231	5	.....	2	* 1	3	1
Brewers	1	1	17	17	17	.....	.....	1	.....	.....	1
Bookbinders	2	40	107	79	766	2	.....	.....	.....	2	.....
Printers, engravers, and type founders	7	95	3,250	2,236	a 75,251	3	.....	4	2	.....	5
Cement manufacturers	1	1	20	20	24	.....	.....	1	1	.....	.....
Railway contractors	2	2	265	155	155	2	.....	.....	2	.....	.....
Glass and china manufacturers	11	457	6,313	698	4,353	7	2	2	2	2	7
Glovers	1	1	8	6	12	.....	.....	1	.....	.....	1
Military outfitters	1	1	140	32	64	1	.....	.....	.....	.....	1
Manufacturers of wooden goods	2	2	86	34	658	.....	.....	2	1	.....	1
Hatters	1	1	9	5	5	.....	.....	1	.....	.....	1
Cork manufacturers	1	1	10	7	.....	1	.....	.....	.....	1	.....
Leather manufacturers	4	4	401	126	249	.....	1	3	1	.....	3
Hackney coachmen	1	50	148	148	148	.....	.....	1	.....	.....	1
Metal workmen	12	13	2,447	1,338	12,911	5	.....	7	4	1	7
Paper and cellulose manufacturers	3	13	852	104	542	1	2	.....	.....	.....	3

a About.

STRIKES IN 1891, BY INDUSTRIES—Concluded.

[It will be observed that the addition of the items in this table will not in all cases produce the totals given. The figures, however, are all as given in the report before referred to, the original not being accessible.]

Industry.	Strikes.	Establishments.	Employees.			Cause or object.			Result.		
			Total.	Strikers.	Days lost.	For increase of wages or that and other demands.	Against reduction of wages.	All other.	Succeeded.	Succeeded partly.	Failed.
Pipe manufacturers	1	1	8	8	64		1		1		
Brush makers	1	1	17	3	27	1					1
Shipping	1	1	100	100	300		1				1
Dockers	1	1	800	30	90	1					1
Manufacturers of fancy boxes	1	1	35	35	490	1			1		
Tailors	1	79	1,656	492	3,444	1				1	
River conservators	1	1	72	72	720	1				1	
Shoemakers	8	556	10,846	2,547	a 87,363	4	3	1	1	4	3
Textile manufacturers	18	18	6,585	2,929	26,529	10	4	4	4	6	8
Joiners and cabinetmakers	6	70	401	300	4,678	2		4	2	2	2
Sugar refiners	1	1	537	130	1,170		1				1
Total	104	b 1,916	40,486	b 14,025	b 247,076	55	15	34	23	26	b 51

a About. b See prefatory note to table.

STRIKES IN 1892, BY INDUSTRIES.

[It will be observed that the addition of the items in this table will not in all cases produce the totals given. The figures, however, are all as given in the report before referred to, the original not being accessible.]

Industry.	Strikes.	Establishments.	Employees.			Cause or object.			Result.		
			Total.	Strikers.	Days lost.	For increase of wages or that and other demands.	Against reduction of wages.	All other.	Succeeded.	Succeeded partly.	Failed.
Painters	1	1	9	9	9			1			1
Builders	6	34	2,241	2,049	19,401	5	1		2	2	2
Binders	4	6	749	158	1,548	2		2	2		2
Manufacturers of cardboard goods	1	2	111	111	222			1	1		
Manufacturers of cellular linen clothing and military stocks	1	1	14	14	140			1			1
Turners	4	92	1,250	442	13,941	3		1	2	2	
Innkeepers	1	1	4	4	4	1					1
Glass and china manufacturers	5	64	2,341	2,222	62,609	3	1	1	1	2	2
Coffee sorters	1	1	200	200	400	1					1
Leather manufacturers	1	1	180	8	8			1		1	1
Hackney coachmen	1	1,200	1,200	1,200	2,400	1				1	
Malt manufacturers	1	1	65	42	42			1			
Metal workers	15	16	4,415	1,444	12,607	4	4	7	2	5	8
Millers	2	2	22	13	25	1		1			2
Pipe makers	1	1	18	11	22	1			1		
Compositors	1	1	4	1	4			1			1
Shoemakers	5	5	363	238	1,756		5		2	2	1
Trunk makers	1	1	19	10	60						1
Textile manufacturers	39	48	10,515	5,420	33,114	17	8	14	10	12	17
Joiners and cabinetmakers	4	24	206	206	1,607	3		1	2		2

STRIKES IN 1892, BY INDUSTRIES—Concluded.

[It will be observed that the addition of the items in this table will not in all cases produce the totals given. The figures, however, are all as given in the report before referred to, the original not being accessible.]

Industry.	Strikes.	Establishments.	Employees.			Cause or object.			Result.		
			Total.	Strikers.	Days lost.	For increase of wages or that and other demands.	Against reduction of wages.	All other.	Succeeded.	Succeeded partly.	Failed.
Wheelwrights	1	12	30	20	460	.....	.....	1	.....	1	.....
Manufacturers of underlinen	3	3	509	123	533	2	1	.....	.....	1	2
Water company	1	1	86	66	66	1	.....	.....	.....	.....	1
Match manufacturers	1	1	70	14	14	.....	1	.....	1	.....	.....
Total	101	1,519	24,621	14,025	150,992	a 46	21	34	26	29	46

a See prefatory note to table.

The following table shows the distribution of strikes in Austria in 1891 and 1892 by districts, giving the number of strikes, establishments involved, employees, and strikers:

STRIKES IN 1891 AND 1892, BY DISTRICTS.

[It will be observed that the addition of the items in this table will not in all cases produce the totals given. The figures, however, are all as given in the report before referred to, the original not being accessible.]

District.	Strikes.		Establishments.		Employees.		Strikers.	
	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.
Lower Austria	35	28	22	1,336	17,111	7,285	5,875	2,520
Upper Austria	3	1	3	1	60	4	59	4
Salzburg	.....	1	.....	4	.....	19	.....	19
Styria	2	3	2	3	476	18	474	16
Carinthia	2	.....	2	.....	80	.....	36	.....
Carniola	2	2	2	2	641	410	124	260
Coast lands	1	3	1	9	800	1,270	30	1,270
Tyrol and Vorarlberg	4	1	68	1	440	46	275	44
Bohemia	27	35	599	127	16,852	10,740	5,023	8,004
Moravia	24	24	26	24	4,737	4,645	1,892	1,855
Silesia	.....	1	.....	1	.....	66	.....	22
Galicia	3	2	90	11	255	118	227	109
Bukowina	1	.....	1	.....	34	.....	10	.....
Dalmatia	.....	.....	.....	.....	.....	.....	.....	.....
Total	104	101	a 1,916	1,519	a 40,486	24,621	14,025	14,123

a See prefatory note to table.

PRIVATE AND PUBLIC DEBT IN THE UNITED STATES.

BY GEORGE K. HOLMES.

There is an elaborate network of debts and credits associated with production and trade, and growing out of the numerous wants and necessities of men, to satisfy which they in many cases use borrowed or hired wealth. The maufacturer may have a mortgage on his factory and be in debt for materials, the jobber and wholesale merchant are indebted to him, while the retail merchants owe them. The retail merchants have customers who are indebted to them, and these customers are more or less creditors. It is therefore practically impossible to ascertain the true amount of the private debts of the people. The difficulty can be illustrated by the following familiar example: A owes B $10, B owes C $10, and C owes A the same amount; a ten-dollar bill handed by the first to the second, by the second to the third, and by the third to the first will satisfy the three debts, yet in any statistics of private debt under this illustration the total would be $30.

In undertaking to arrive at the amount of private debt it is impossible to offset credits against debts in cases similar to the foregoing. The best that can be done is to ascertain the amounts of the various classes of debts which are offset little, it any, by credits and regard their sum as the minimum amount of debt, somewhere above which is the true amount.

The results of an effort to do this are presented in the accompanying statement of the minimum debt of the United States in 1890. The amounts of the funded and unfunded debt of railroad and street railway companies, and the amount of the funded debt of telephone companies are obtained from the reports of the Eleventh Census of the United States. To the reported debt of railroad companies has been added an estimate of the debt not reported. The totals for the other items in the statement have been taken from similar official or authentic reports (*a*), or are carefully prepared estimates.

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a Bulletins and final reports of the Eleventh Census, Poor's Manual of Railroads, the Manual of American Waterworks, reports of the Massachusetts gas and electric light commissioners, and reports of the Comptroller of the Currency.

MINIMUM DEBT OF THE UNITED STATES, 1890.

Description of debt.	Amount.	Per cent of group total.
RAILROAD COMPANIES.		
Funded debt reported	$4,631,473,184	.....
Funded debt not reported (estimated in proportion to mileage)	286,218,553	.....
Unfunded debt reported, not including unpaid dividends	707,986,820	.....
Unfunded debt not reported (estimated in proportion to mileage)	43,752,557	.....
Total	5,669,431,114	.....
STREET RAILWAY COMPANIES.		
Funded debt	151,872,289	.....
Unfunded debt	30,368,465	.....
Total	182,240,754	.....
Total for railroads and street railway companies	5,851,671,868	.....
QUASI PUBLIC CORPORATIONS.		
Railroad companies ($329,971,110 estimated)	5,669,431,114	91.44
Street railway companies	182,240,754	2.94
Telephone companies, funded debt	4,992,565	.08
Telegraph companies ($2,556,808 estimated)	20,000,000	.32
Public water companies, not owned by municipalities ($26,488,939 estimated)	89,127,489	1.44
Gas companies (estimated)	75,000,000	1.21
Electric lighting and power companies (estimated)	45,000,000	.73
Transportation companies, not otherwise specified, and canal, turnpike, bridge, and other quasi public corporations (estimated to make round total)	114,208,078	1.84
Total	6,200,000,000	100.00
REAL ESTATE MORTGAGES.		
On homes occupied by owners.		
In the 420 cities and towns of from 8,000 to 100,000 population	292,611,974	27.95
In the 28 cities of 100,000 population and over	393,029,833	37.54
Outside of cities and towns of 8,000 population and over	361,311,796	34.51
Total	1,046,953,603	100.00
On farms and homes occupied by owners.		
On farms	1,085,995,960	50.92
On homes	1,046,953,603	49.08
Total	2,132,949,563	100.00
On acre tracts.		
On farms occupied by owners	1,085,995,960	49.16
On hired farms and other acre tracts	1,123,152,471	50.84
Total	2,209,148,431	100.00
On lots.		
On homes occupied by owners	1,046,953,603	27.48
On hired homes, business real estate, and all other lots	2,763,577,951	72.52
Total	3,810,531,554	100.00
On all real estate.		
On acre tracts	2,209,148,431	36.70
On lots	3,810,531,554	63.30
Total	6,019,679,985	100.00
INDIVIDUALS AND PRIVATE CORPORATIONS.		
Real estate mortgages	6,019,679,985	50.16
Crop liens in the South (estimated)	300,000,000	2.50
Crop liens outside of the South, and chattel mortgages (estimated)	350,000,000	2.92
National banks, loans and overdrafts	1,904,167,351	15.87
Other banks, loans and overdrafts, not including real estate mortgages	1,172,918,415	9.77
National, state, and local taxes	1,040,473,013	8.67
Other net private debt (estimated to make round total)	1,212,761,236	10.11
Total	12,000,000,000	100.00

MINIMUM DEBT OF THE UNITED STATES, 1890—Concluded.

Description of debt.	Amount.	Per cent of group total.
AGGREGATE PRIVATE DEBT.		
Quasi public corporations	$6,200,000,000	34.07
Individuals and private corporations	12,000,000,000	65.93
Total	18,200,000,000	100.00
PUBLIC DEBT, LESS SINKING FUND.		
United States	891,960,104	44.00
States	228,997,389	11.30
Counties	145,048,045	7.15
Municipalities	724,463,060	35.74
School districts	36,701,948	1.81
Total	2,027,170,546	100.00
AGGREGATE PRIVATE AND PUBLIC DEBT.		
Private debt	18,200,000,000	89.98
Public debt	2,027,170,546	10.02
Total	20,227,170,546	100.00

Some of the classes of corporations enumerated in the foregoing statement, such as transportation companies not otherwise specified, canal, turnpike, and bridge companies, do a cash business, and others a business that is so nearly for cash that there is comparatively little in amount of credits to offset against their debt. The amount of credits of such corporations is undoubtedly much more than balanced by the wages that they owe just before pay day.

Debtors who place mortgages on their real or personal estates are creditors to some extent, how far it is impossible to estimate; but these persons are not regarded as appreciably a creditor class, as they would need to be if their combined debt of $6,669,679,985 was to be reduced much on this account. On the other hand, the borrowers from banks, not including borrowers on real estate security, may be supposed to be creditors to a considerable degree. National banks can not lend on real estate mortgages, and therefore these securities are excluded from the loans of other banks.

The public revenue, too, is derived from persons who are creditors as well as debtors, and a large portion of it, as in the case of crop liens, is not a debt that continues throughout the whole year. Notwithstanding this, it is included in the statement of debt, partly because it is a conspicuous and disagreeable debt burden and partly to account for some of the debt which can not be ascertained in its entirety.

It is believed that the total of the preceding statement expresses the minimum debt of the people of the United States in 1890. Only 12.14 per cent of it is estimated, no part of it is duplicated, and the supposition is that the accepted debt offset by credit is more than equaled by the omitted debt. In addition to showing the amounts, the statement gives the percentages that the different amounts are of the totals of the respective groups of debts. For instance, of the grand total, 89.98 per

cent is classed as private and 10.02 per cent as public debt; the real-estate mortgage debt forms 50.16 per cent of the total debt of individuals and private corporations, and the debt of railroad companies 91.44 per cent of the debt of quasi public corporations.

The relative importance of the different classes of debts is shown by the following statement, in which the various items of debt are converted into percentages of the total debt of $20,227,170,546:

PER CENT OF EACH CLASS OF DEBT OF THE AGGREGATE DEBT, 1890.

Description of debt.	Per cent.
QUASI PUBLIC CORPORATIONS.	
Railroad companies (partly estimated)	28.03
Street railway companies	.90
Telephone companies, funded debt	.03
Telegraph companies (partly estimated)	.10
Public water companies, not owned by municipalities (partly estimated)	.44
Gas companies (estimated)	.37
Electric lighting and power companies (estimated)	.22
Transportation companies, not otherwise specified, and canal, turnpike, bridge, and other quasi public corporations (estimated)	.56
Total	30.65
INDIVIDUALS AND PRIVATE CORPORATIONS.	
Real estate mortgages	29.76
Crop liens in the South (estimated)	1.48
Crop liens outside of the South, and chattel mortgages (estimated)	1.73
National banks, loans and overdrafts	9.41
Other banks, loans and overdrafts, not including real estate mortgages	5.80
National, state, and local taxes	5.15
Other net private debt (estimated)	6.00
Total	59.33
PUBLIC DEBT, LESS SINKING FUND.	
United States	4.41
States	1.13
Counties	.72
Municipalities	3.58
School districts	.18
Total	10.02
Grand total	100.00
Estimated	12.14
* Statistically established	87.86

Of the different groups of debts that of individuals and private corporations stands first, forming 59.33 per cent of the total, while quasi public corporations form 30.65 per cent. The real-estate mortgage debt alone is 29.76 per cent of the grand total, and is followed by that of railroad companies, 28.03 per cent. Among the items of public debt that of the United States is first, and forms 4.41 per cent, while the debt of municipalities is 3.58 per cent of the total.

There is a great difference between the significance of a debt incurred to acquire the ownership of capital or the more durable property to be used productively and to be retained and used by the debtor and to be kept available for the payment on his debt, and that of a debt incurred for the purchase of property soon to be consumed unproductively or for the purchase of evanescent property. The debt of the quasi public corporations originally stood for substantially an equal amount of capital, and it stands for the same at the present time, except in the

cases of such corporations (almost entirely railroad companies) as have become bankrupt to such a degree that their property is not sufficient to pay their debts.

The statistical information concerning the purposes for which private debts were incurred is exceedingly limited, except that represented by real estate mortgages or by incumbrances on farms and homes occupied by owners, which formed the subject of special investigations at the eleventh census of the United States. The purposes for which this class of debts were incurred are condensed to eight groups, and presented in the accompanying statement. This statement not only gives the amount of the debt incurred for the different purposes, but shows the per cent that each item is of the respective totals of the three general groups of debts based on farms occupied by owners, on homes occupied by owners, and the combination, on farms and homes occupied by owners.

PURPOSES OF INCUMBRANCES ON FARMS AND HOMES.

[The debts included under this classification consist almost entirely of real estate mortgages.]

Purposes of debt.	Amount.	Per cent of group total.
ON FARMS OCCUPIED BY OWNERS.		
Debt incurred for—		
Purchase of real estate	$699,176,464	64.38
Real estate improvements	49,168,733	4.53
Real estate purchase and improvements combined (not included in the two items next preceding)	57,689,492	5.31
Business	21,139,559	1.95
Purchase of the more durable kinds of personal property	12,904,822	1.19
Farm and family expenses	30,684,018	2.82
Various combinations of purposes, not otherwise specified	184,840,230	17.02
All other purposes	30,392,642	2.80
Total	1,085,995,960	100.00
ON HOMES OCCUPIED BY OWNERS.		
Debt incurred for—		
Purchase of real estate	554,334,083	52.95
Real estate improvements	229,412,937	21.91
Real estate purchase and improvements combined (not included in the two items next preceding)	66,793,837	6.38
Business	84,715,323	8.09
Purchase of the more durable kinds of personal property	2,037,624	.19
Family expenses	18,589,629	1.78
Various combinations of purposes, not otherwise specified	64,706,846	6.18
All other purposes	26,363,324	2.52
Total	1,046,953,603	100.00
ON FARMS AND HOMES OCCUPIED BY OWNERS.		
Debt incurred for—		
Purchase of real estate	1,253,510,547	58.77
Real estate improvements	278,581,670	13.06
Real estate purchase and improvements combined (not included in the two items next preceding)	124,483,329	5.84
Business	105,854,882	4.96
Purchase of the more durable kinds of personal property	14,942,446	.70
Farm and family expenses	49,273,647	2.31
Various combinations of purposes, not otherwise specified	249,547,076	11.70
All other purposes	56,755,966	2.66
Total	2,132,949,563	100.00

The purchase of real estate appears as the principal purpose for which debts were incurred, the total for this purpose, when not associated with any other, being 58.77 per cent of the combined debt on farms and homes occupied by owners. Real estate improvements, when not asso-

ciated with any other purpose, rank second, being 13.96 per cent of the combined debt. The details given in this statement show at a glance the different incentives for debt. By a further condensation of purposes, it appears that real estate purchase and improvements, when not associated with any other purpose, are represented by the following percentages: For farms, 74.22 per cent; for homes, 81.24 per cent; for farms and homes, 77.67 per cent. Real estate purchase and improvements, business, and the purchase of the more durable kinds of personal property are: For farms, 93.68 per cent; for homes, 95.56 per cent; for farms and homes, 94.65 per cent (*a*). Thus it appears that almost the entire incumbrance on farms and homes occupied by owners was due to the acquiring of capital and the more durable kinds of property.

The crop lien of the South was a necessity that grew out of the conditions in which the farmers found themselves at the close of the civil war. They had their farms and some mules and implements, but beyond that they were poor and could not maintain themselves, to say nothing of paying wages until the harvesting of the next crop, and the ex-slaves, perhaps hardly more than their former masters, were in need of immediate subsistence. In this strait, credit was obtained with the merchants for an advance of supplies until the harvesting of the crop, which, being mostly cotton, but partly tobacco, was as good as cash at the time of harvest. The plantations were next more or less subdivided into holdings to be cultivated by the negroes on shares. Landlords and tenants secured the merchants for advancements by crop liens and by mortgages on farm animals. That system has continued with little abatement until the present time, and the debt that accompanies it is mostly a subsistence debt, but to some extent a debt for capital. The crop liens and chattel mortgage debt of the more recently settled regions partake largely of the latter character.

The purposes of the loans obtained from banks can not be definitely described. It is a matter of common understanding that they are mostly for capital, since banks would not lend to persons, and friends would not indorse for them, if they intended to use the borrowed money so as to weaken their financial responsibility.

The tax debt aims to have for its compensation the maintenance of justice, the promotion of public works, of education, and of undertakings for the general good; and the same may be said of the public debt.

The miscellaneous undescribed debts are those that grow out of trade, production, and services of many varieties. It is impossible to say how far they stand for capital, or for wealth to be preserved or to be consumed.

After the foregoing review of the significance of the various classes of debt, it is apparent that at least about nine-tenths of it was incurred for the acquirement of capital and of the more durable kinds of prop-

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a These per cents do not appear in the statement, as they are partly composed of incumbrance taken from some of the "various combinations of purposes, not otherwise specified."

There is a difference to him whether the source
borrowed wealth used as capital, or the earnings
incipal of the borrowed wealth itself. The com
Western and Southern farmers for several year
ney paid interest, if at all, out of the earnings o
t of their capital. As already shown, by far th
f the debt of individuals and of private and qua
s represents productive capital in their hands.
istics of rates of interest now available make it
pproximately, the amount of the interest paid o
e debt in 1890. This has been done, and the resul
following statement, which shows the debt and
f interest for the different classes of debt:

AMOUNT AND RATE OF INTEREST, 1890.

Description of debt.	Debt.
PRIVATE DEBT.	
companies, funded debt (partly estimated)	$4,917,691,737
ilway companies, funded debt	151,872,289
ne companies, funded debt	4,992,565
h companies (partly estimated)	20,000,000
ater companies, not owned by municipalities (partly ted)	89,127,489
panies (estimated)	75,000,000
lighting and power companies (estimated)	45,000,000
rtation companies, not otherwise specified, and canal, ke, bridge, and other quasi public corporations (esti-	114,208,078
te mortgages	6,019,679,985
s in the South (estimated)	300,000,000
s outside the South, and chattel mortgages (estimated)	350,000,000
banks, loans and overdrafts	1,904,167,351
nks, loans and overdrafts, not including real estate ges	1,172,918,415
urths of other net private debt (estimated) (c)	909,570,927
tal	16,074,228,836

AMOUNT AND RATE OF INTEREST, 1890—Concluded.

Description of debt.	Debt.	Interest.	Rate per cent.
REAL ESTATE MORTGAGES.			
On farms occupied by owners	$1,085,995,960	$76,728,077	7.07
On homes occupied by owners	1,046,953,603	65,182,029	6.23
On farms and homes occupied by owners	2,132,949,563	141,910,106	6.65
On homes occupied by owners in the 420 cities and towns of from 8,000 to 100,000 population	292,611,974	18,417,745	6.29
On homes occupied by owners in the 28 cities of 100,000 population and over	393,029,833	22,584,509	5.75
On homes occupied by owners outside of cities and towns of 8,000 population and over	361,311,796	24,179,775	6.69
On acre tracts	2,209,148,431	162,652,944	7.36
On lots	3,810,531,554	234,789,848	6.16
On all real estate	6,019,679,985	397,442,792	6.60

The interest on real estate mortgages is given at 6.60 per cent, which is the rate adopted for the loans of all banks. On the crop liens of the South a high average rate is paid, how high it is not known. Numerous and extensive inquiries, many of them answered by merchants and cotton buyers who hold or have held crop liens, point to the conclusion that the average rate on these liens must be as high as 40 per cent, rarely going as low as 25 per cent, and often going as high as 75 per cent and more.

From the report of the bureau of labor statistics of Illinois it appears that the average rate of interest on chattel mortgages in that state was 7.83 per cent in 1887. There is reason to believe that the rate on chattel mortgages farther west and in the South, and the crop liens west of the Mississippi River, is higher than this, and the general rate of 10 per cent is adopted for crop liens outside of the South and for chattel mortgages.

Some of the estimated "other net private debt," which has been placed at $1,212,761,236, does not bear interest, such as the debt owing to physicians, to lawyers, for labor, and the like, and for the want of any knowledge of its proportions its amount is arbitrarily assumed to be one-fourth of the total of the class to which it belongs, and the average rate of interest on the remaining three-fourths to be 7 per cent.

The average rates of interest on the total public debt, the debt of the United States, and the local public debt are taken from the report on wealth, debt, and taxation, which forms a part of the report of the eleventh census of the United States. No attempt has been made to correct any of these rates according as the bonds of corporations, public as well as private and quasi public, have been sold above or below par, nor according as there has been default of payment, except in the latter case, for railroad companies.

The total interest-bearing private debt is $16,074,228,836, and the total interest paid $1,071,561,924, the average rate being 6.67 per cent, while the average rate on the debt of the United States is 4.08 per

cent, this low rate being partly determined by the debt's freedom from taxation. While the average rate on real estate mortgages is 6.60 per cent, it goes as high as 7.07 per cent on farms occupied by owners and 7.36 per cent on acre tracts.

The material is not statistically or otherwise ascertainable to determine with what ease or difficulty, as the case may be, debtors pay their debts and the interest on them. Numerous voluntary explanations bearing on this point have been made by mortgage debtors and by debtors who own their farms and homes subject to incumbrance. From these explanations it would be impossible to form any definite or tangible conclusion; they are too often doubtful, because remote and involved in political and economic theories.

Whether a ratio between the debt and the wealth possessed by the debtors indicates more than the debt's security to the creditors depends upon the earnings of the borrowed wealth, or, if it has no earnings, upon the income of the debtors.

Subject to these qualifications the accompanying statement is presented, which gives the amount of debt, the wealth, and the percentage that the debt is of the wealth. The figures given in the column headed wealth represent in some cases only the value of the property on which the debt given is a lien; in other cases they represent the value of all of the property in the class to which the debt belongs, although some of the property is not incumbered. These latter are railroad, street railway, and telephone companies, the gas companies in Massachusetts first mentioned, and taxed real estate and untaxed mines.

PER CENT OF DEBT OF WEALTH, 1890.

Description of wealth.	Debt.	Wealth.	Per cent debt is of wealth.
Railroad companies	$5,669,431,114	$8,401,508,804	67.48
Street railway companies	182,240,754	283,898,519	64.19
Telephone companies	4,992,565	72,341,736	69.01
Gas companies in Massachusetts (*a*)	6,892,329	*b* 20,322,329	33.92
Gas companies in Massachusetts owing debt (*a*)	6,892,329	*b* 14,475,229	47.61
Incumbered farms occupied by owners	1,085,995,960	3,054,923,165	35.55
Incumbered homes occupied by owners	1,046,953,603	2,632,374,904	39.77
Incumbered farms and homes occupied by owners	2,132,949,563	5,687,298,069	37.50
Incumbered homes occupied by owners in the 420 cities and towns of from 8,000 to 100,000 population	292,611,974	739,846,087	39.55
Incumbered homes occupied by owners in the 28 cities of 100,000 population and over	393,029,833	934,191,811	42.07
Incumbered homes occupied by owners outside of cities and towns of 8,000 population and over	361,311,796	958,337,006	37.70
Taxed real estate and untaxed mines	6,019,679,985	36,025,071,490	16.71
The United States	20,227,170,546	65,037,091,197	31.10

a 1891. *b* Capital stock and bonds.

The percentage that the debt is of the wealth with which it is compared ranges from 16.71 per cent for the taxed real estate and untaxed mines to 69.01 per cent for telephone companies. The percentage in the case of incumbered farms or homes occupied by owners ranges from 35.55 per cent on farms to 42.07 on homes in the 28 cities with a

population of 100,000 and over, the percentage of incumbrance being less on farms than on homes. The percentage on homes is highest in the cities with a population of 100,000 and over, falls to 39.55 per cent in the cities with a population of from 8,000 to 100,000, and to the lowest point, 37.70 per cent, on those homes that are outside the cities of 8,000 population and over, the percentage of incumbrance being considerably less in the rural than in the urban districts. The total private and public debt is 31.10 per cent of the wealth of the United States; this percentage measures as a minimum the extent to which the wealth of the country has passed into the possession of debtors.

The comparison between debt and wealth is continued in the next statement, which exhibits the values of various annual products and classes of property. This statement is necessarily more or less imperfect as a comparison, but it contains amounts of which it may be desired to make some use in connection with the subject under consideration.

DEBT AND ITS INTEREST COMPARED WITH VALUES, 1890.

Description.	Amount.
Private and public debt	$20,227,170,546
Interest paid on the private and public debt	1,166,101,303
Product of manufactories, less cost of materials	4,211,239,271
Product of farms	2,460,107,454
Product of fisheries	44,277,514
Product of mines and quarries	587,230,662
Total products of productive industries	7,302,854,901
Capital employed in manufacturing	6,139,397,785
Value of farms	13,279,252,649
Value of live stock on farms and ranges, farm implements, and machines	2,703,015,040
Capital employed in the fisheries	43,602,123
Value of mines and quarries and products on hand	1,291,291,579
Total capital invested in productive industries	23,456,559,176
Value of farms, live stock on farms and ranges, farm implements, and machines	15,982,267,689
Wages and salaries paid in manufacturing	2,283,216,529
Value of machinery and mills and products on hand, raw and manufactured	3,058,593,441
Value of telegraph and telephone property, shipping, and canals	701,755,712
Value of gold and silver coin and bullion	1,158,774,948
Income of railroad companies	1,204,335,951
Property insurance risks in force	18,691,434,190
Increase of wealth, 1880 to 1890	21,395,091,197
Increase of wealth, 1889 to 1890	2,819,902,791

Per capita averages based on the number of debtors convey an idea of the general level of debt among them, but when the averages are based on the total population the idea conveyed must be that of the social level of debt. The per capita, or social level of debt, is shown in the following statement for some of the principal groups of debts:

PER CAPITA DEBT, 1890.

Description of debt.	Per capita debt.
Quasi public corporations:	
Railroad and street railway companies	$93
Other quasi public corporations	6
Total	99
Individuals and private corporations:	
Real estate mortgages on incumbered farms, etc	34
Other real estate mortgages	62
Banks, loans and overdrafts, not including real estate mortgages	49
National, state, and local taxes	17
Other	30
Total	192
Total quasi public and private debt	291
Public debt	32
Total private and public debt	323
On incumbered farms and homes occupied by owners, crop liens, chattel mortgages, taxes, and "other net private debt"	80

The per capita private debt is $291, public debt $32, the total being $323, or $1,594 per family. Few families owe this amount; and the foregoing analysis shows the sources of the debt that contributes to most of the averages. It comes largely from the capital of railroad and other quasi public corporations, from real estate purchases and improvements, and from the loans of banks.

If to the crop liens and chattel mortgages are added the taxes, "other net private debt," and the public debt, the total will include most of the debt to which debtors are most sensitive, although some of it is capital. The total of this group of debts is $4,930,404,795, that is, $79 per capita, or $388 to each family of 4.93 persons in 1890.

The reports of the eleventh census supply some averages of debt computed upon the number of debtors. Each family owning the farm it occupies under incumbrance owes an average incumbrance of $1,224; home, $1,293; farm or home, $1,257; home in the 420 cities and towns of from 8,000 to 100,000 population, $1,363; home in the 28 cities of 100,000 population and over, $2,337; home outside of the cities and towns of 8,000 population and over, $846. The average mortgage on acre tracts made during the ten years from 1880 to 1889, inclusive, was for $1,032; on lots, $1,509; on all real estate, $1,271; on lots in the 27 counties containing the 28 cities of 100,000 population and over, $2,798; mortgages made by quasi public corporations are not included.

To what extent real estate may be mortgaged is a matter of opinion, depending in the aggregate upon the consensus of opinion of lenders as to the degree of risk they will take. The degree of risk varies as between city and country, as between improved and unimproved real estate, and as between one region and another. The real estate mortgage debt has reached $6,019,679,985, and the estimated true value of taxed real estate and untaxed mines with which this amount may be compared is $36,025,071,490. The taxed real estate and untaxed mines,

valued as above, constitute the real estate upon a part of which the above-mentioned mortgage debt is an incumbrance, and include little real estate of quasi public corporations.

If it is practically possible to mortgage real estate for one-half of its value and no more, the existing mortgage debt is 33.42 per cent of the limit; if for three-fifths of its value, 27.85 per cent of the limit; if for two-thirds, 25.06 per cent of the limit.

High real estate values make possible a large mortgage debt, and as a general rule where real estate values are highly concentrated the same is true of mortgage debt. Among the 2,781 counties covered by the census investigation of mortgages there are 27 that contain the 28 cities of 100,000 population and over, and the mortgage debt on the real estate in these counties is 40.51 per cent of the entire real estate mortgage debt of the whole country. In the 338 counties containing the 448 cities and towns of 8,000 population and over the mortgage debt is 69.40 per cent of the total. There are 29 counties in each of which the mortgage debt is $25,000,000 and over, and the total mortgage debt on the real estate in these counties is 43.34 per cent of the total for the whole country. The 76 counties each having real estate with a mortgage debt of $10,000,000 and over, represent 55.20 per cent of the total, and the 158 counties each having an existing mortgage debt of $5,000,000 and over 64.71 per cent of the total.

this number of the Bulletin a digest of the repo
aus of labor statistics in Connecticut, Indiana,
a, Missouri, and Wisconsin is given, and will be
ent numbers, by similar presentations for the
aus in other states. As far as possible quotat
from the results of the original investigations c
ent bureaus.

CONNECTICUT.

e Tenth Annual Report of the Bureau of Labor S
cut for the year ending November 30, 1894, is de
g subjects: Savings and loan associations, 150 pag
strial depression, 98 pages; child labor, 27 pages;
ing time on production, 30 pages; trade and indu
ges. The presentation under each of these heads
of the last, is the result of an original investigatio
ailing in Connecticut.

VINGS AND LOAN ASSOCIATIONS.—The general p
ese associations, their origin, introduction, and
ed States, and their present importance is discus
nt of the associations in Connecticut is given i
stics for the sixteen local associations in exist
are summarized and presented separately. Th
l law to regulate these associations in the state
the laws of several other states on the same subj

Receipts:	
Cash on hand at beginning of year	$44,605.76
Cash receipts in last fiscal year, exclusive of loans repaid	272,447.58
Loans repaid	101,993.99
Total	419,047.33
Disbursements:	
Real-estate loans	$192,047.68
Withdrawals	134,043.95
Expense account	6,092.64
Other disbursements, including cash on hand	85,963.06
Total	419,047.33
Profits:	
Net (expense of management deducted)	$37,947.77
Gross profits	42,980.12
Number of loans to pay for homes	59
Number of loans for other purposes	157
Total number of loans	216
Loans repaid, number	1,078
Loans repaid, amount	$364,015.18
Loans outstanding at end of last fiscal year	$732,966.97
Number of shares outstanding at end of last fiscal year	20,493
Value of shares at maturity	$4,108,850.00
Per cent management expenses are of receipts	1.97
Per cent borrowers are of shareholders	22.03
Per cent loans are of shareholders	28.37
Number of shareholders at end of last fiscal year, men	2,251
Number of shareholders at end of last fiscal year, women	568
Number of shareholders at end of last fiscal year, minors	169
Total number of shareholders	2,988

EFFECTS OF THE INDUSTRIAL DEPRESSION.—The statistics presented on this subject were obtained directly from the books of 378 leading establishments, representing the principal industries in different parts of the state and giving employment to 48.17 per cent of the total number of employees in all industries, according to the United States census of 1890. As 1892 was a fairly prosperous year it was requested that the number of employees, wages paid, and hours of labor for that year be used in comparison with similar data for each month of the period of depression extending from June, 1893, to August, 1894, inclusive. The number of days entirely shut down and changes in wage rates during the period of depression were also called for. The results are given in detail for each establishment, and summarized in convenient form for the different industries. The extent of the depression is indicated by a tabular statement showing the percentages that the time, number of employees, wages, etc., are of the totals for each establishment when working under the conditions existing in 1892. The summary for all industries shows that the working time during the period of depression was about two-thirds of the full time, and the average number of employees was 84.83 per cent of the average number in 1892, while the average monthly payment in wages had decreased about 25 per cent. A large majority of the industries retained on the pay rolls a large percentage of the ordinary number of employees. The reduction made necessary by the depression was largely in the working time, and this is reflected with the nearest approach to accuracy in the lessening of the payments on account of wages. Of the larger industries woolen goods manufacture

s and shoes and leather goods	70.86
s and brass goods	70.19
ages and carriage parts	60.25
ry and tools	53.10
rms	53.05
ware	63.96
	79.74
ery and knit goods	70.21
ine shops	65.77
factures of cotton goods	65.82
cal instruments and parts	46.66
r boxes and envelopes	78.61
r mills	84.88
ting and bookbinding	89.47
er and elastic goods	82.50
	63.59
r-plated ware	59.67
dworking	70.16
len goods	57.77

little more than one-half of the establishments repr
rate of wages. The most common percentage of r
several of the industries not over one-third of th
orted reductions in wage rates, and in one industry,
bookbinding, no changes in wage rates were report
wage rates, average employees and wages, time th
e idle, and the production during the depression a
2, together with percentages similar to those sho
tement, are given in detail in the report for each
ments, grouped under the different industries.

CHILD LABOR.—To show the desirability of extendi
n 13 to 14 years at which children could leave
ployment, the bureau continued the investigation of
rd of education, referred to in the report of the secre
ormation was obtained from the grammar schools o
average age at which pupils completed the highest
per cent not completing the grammar school cou

The replies to the question concerning the average age at completing the grammar school course are summarized as follows:

AGES AT COMPLETION OF GRAMMAR SCHOOL COURSE.

Average age at completion of highest grammar grade.	Schools reporting.				
	1890.	1891.	1892.	1893.	1894.
Over 12 and under 13 years	.....	.....	1	.....	1
Over 13 and under 14 years	6	9	6	10	15
Over 14 and under 15 years	9	11	23	26	29
Over 15 years	11	16	17	22	29

In commenting on the results of child labor and educational laws in other states as compared with Connecticut the commissioner states: "There are employed in New York factories 15 children for each 1,000 employees, in Massachusetts 18 per 1,000, and in Connecticut 21 per 1,000." The calculations are based on the United States census of 1890. The beneficial results of extending the age limit are treated under the appropriate heads of "Strength of body and of character," "Greater skill and increased comforts," "Would not intensify competition," etc.

EFFECT OF REDUCED WORKING TIME ON PRODUCTION.—Information on this subject was obtained from about 100 establishments. The questions called for the effect of a decrease in working time on piece earnings and on production per employee. The answers are published in full for each establishment, by industries.

The following statement concerning establishments engaged in the manufacture of hats is illustrative of the data furnished for the different industries:

HAT-MAKING ESTABLISHMENTS CLOSING AT NOON ON SATURDAY.

Location of establishment.	Months closed at noon Saturday.	Plan adopted in—	Reduction in weekly wages.	Effect on piece earnings.	Effect on production per employee.	Usual number of employees.
Norwalk	12	1890	Yes	None	None(*a*).	200
Norwalk	12	1890	Yes	None	None	12
Norwalk	12	1890	Yes	None	None	100
Norwalk	12	1890	Yes	None	None	150
Norwalk	12	1891	Yes	None	None	60
Danbury	3	1891	(*b*)	None	None	10
Norwalk	12	1892	Yes	None	None	60
Danbury (*c*)	12	.....	Yes	(*d*)	(*d*)	20

a Except where machinery is used.
b All piecework.
c Closing at 3 p. m. Saturday.
d Proportionately less.

More than one-half of the establishments making returns reported that there had been no reduction in production following a decrease in the working hours; 31 reported a reduction in product proportionate to the reduction in working time; 7 reported a slight reduction in product; 6 did not report whether the reduction was proportionate or otherwise. The conditions prevailing in the different industries, as shown by the

answers of each establishment, are discussed in detail. The statistical presentation is preceded by a general treatise on the subject under consideration.

TRADE AND INDUSTRIAL EDUCATION.—This subject is treated in textual form, and covers the methods prevailing in foreign countries and in various institutions in the United States, the data being gathered largely from the Eighth Annual Report of the Commissioner of Labor of the United States.

INDIANA.

The Fifth Biennial Report of the Department of Statistics of Indiana for the years 1893 and 1894 opens with a summary of the data concerning different industries and a reproduction of the labor laws of the state. The subjects discussed in the report are as follows: Women wage earners of Indianapolis, 108 pages; labor organizations, 57 pages; domestic labor, 57 pages; coal mining statistics, 123 pages; the iron industries, 35 pages; the wood industries, 70 pages; miscellaneous industries, 53 pages; the glass industry, 33 pages; economic, social, and census statistics, 83 pages; cereal crops and farm animals, 50 pages; railroad statistics, 31 pages.

WOMEN WAGE EARNERS OF INDIANAPOLIS.—The statistics relating to this subject are compiled from the reports of 500 working women in Indianapolis engaged in 20 different industries. The reports were secured by a personal canvass, a representative number being selected for each industry. The questions were designed to obtain detailed information under the following heads:

1. Origin: viz, nativity of girl and of parents, whether city or country reared, and occupation of father.
2. Personal and industrial surroundings.
3. Wages and earnings.
4. Expenses and savings.

All but 31 of the 500 girls involved were born in the United States, and 359 were born in Indiana. Eleven working girls' parents were natives to every 9 girls' parents who were foreign. Eighty-four per cent of the girls were reared in the city. Forty per cent of the girls' fathers were mechanics, 31 per cent laborers, 15 per cent tradesmen, 6 per cent professional men, and 8 per cent in miscellaneous occupations. Nine-tenths of the girls were unmarried, and 86 per cent were living at home.

The facts presented in the following statement have been selected from the tables showing statistics concerning the origin and personal and industrial surroundings of the working girls of Indianapolis:

PARENTAGE, CONJUGAL CONDITION, AND AGE OF WOMEN WAGE EARNERS, INDIANAPOLIS.

Industry or occupation.	Reared in—		Occupation of father.					Conjugal condition.			Average age.
	City.	Country.	Laborer.	Mechanic	Tradesman.	Professional man.	Miscellaneous.	Single.	Married.	Widowed.	
Bindery	59	1	13	28	9	7	3	53	3	4	24.4
Bookkeeping	9	1	.....	5	2	.....	3	10	.....	.....	24.7
Candy factory	10	.....	3	5	.....	.....	2	9	1	.....	22.6
Card factories	15	5	11	7	.....	.....	2	20	.....	.....	19.7
Carpet sewers	10	.....	1	4	2	.....	3	8	.....	2	32.5
Chain, etc., makers	6	4	4	3	1	.....	2	10	.....	.....	19.8
Cotton mills	15	5	10	9	1	.....	.....	18	1	1	20.3
Dressmaking	22	8	11	12	4	2	1	26	1	3	28.5
Hair dressing	8	2	3	6	.....	1	.....	10	.....	.....	20.9
Laundry	27	13	24	10	4	1	1	36	2	2	26.3
Millinery	26	4	6	10	6	4	4	26	3	1	25.2
Pants, shirts, etc	39	21	30	21	6	3	.....	50	4	6	27.2
Paper box factory	9	1	4	6	.....	.....	.....	10	.....	.....	19.9
Pork packing house	9	1	7	2	1	.....	.....	9	.....	1	26.0
Saleswomen	95	5	17	36	28	7	12	95	2	3	23.3
Stenographers, etc	17	3	2	4	6	2	6	18	2	.....	22.7
Telephone	10	.....	1	7	1	1	.....	10	.....	.....	21.3
Tile works	15	5	6	12	1	.....	1	12	7	1	22.4
Tobacco factory	10	.....	1	7	2	.....	.....	9	1	.....	22.5
Woolen mills	10	.....	3	6	1	.....	.....	10	.....	.....	23.7
Total	421	79	157	200	75	28	40	449	27	24	a 23.7

The averages obtained from some of the other important subdivisions of the inquiry are given in the following summary:

WORKING TIME, EARNINGS, AND EXPENSES OF WOMEN WAGE EARNERS, INDIANAPOLIS.

Industry or occupation.	Average—							Girls who save money.	
	Age of beginning work.	Hours of work.		Weeks of vacation.	Unproductive weeks.	Earnings of past year.	Expenses of past year.	Number.	Average savings for year.
		Daily, except Saturday.	Saturday.						
Bindery	17.4	10.0	9.0	1.0	5.3	$260	$253.28	7	$57.60
Bookkeeping	19.7	8.7	8.3	1.6	4.0	494	448.60	4	113.25
Candy factory	15.7	10.0	8.5	.8	7.0	220	215.00	1	50.00
Card factories	14.9	10.0	9.5	.2	12.3	169	166.50	1	25.00
Carpet sewers	18.5	9.5	9.2	.7	7.3	269	266.50	1	25.00
Chain, etc., makers	17.2	10.3	8.0	.....	16.2	156	146.00	1	100.00
Cotton mills	14.5	10.0	9.5	1.3	8.1	201	201.00	.....	.....
Dressmaking	18.7	9.4	10.1	.6	9.1	255	231.78	10	69.66
Hair dressing	15.4	9.7	13.3	1.6	4.3	248	245.60	2	12.00
Laundry	16.1	10.0	8.0	1.0	5.4	300	283.00	10	67.92
Millinery	17.0	9.4	13.0	1.7	14.9	427	392.87	10	102.39
Pants, shirts, etc	17.6	10.2	7.6	.2	6.9	250	230.90	13	88.15
Paper box factory	17.3	9.5	8.3	.....	7.9	124	124.00	.....	.....
Pork packing house	17.5	8.9	8.9	.....	11.0	190	185.00	2	25.00
Saleswomen	16.6	9.3	13.0	1.7	4.8	265	246.10	25	75.60
Stenographers, etc	18.3	8.3	7.9	1.6	7.1	346	319.90	6	87.00
Telephone	15.8	9.0	9.0	1.8	5.3	241	223.00	4	45.00
Tile works	17.2	8.0	5.0	.2	5.1	158	155.50	1	25.00
Tobacco factory	14.9	8.2	7.6	.8	4.8	209	204.50	2	22.50
Woolen mills	13.8	10.0	10.0	.....	20.0	227	219.50	2	37.50
Average	a 16.7	a 9.4	a 9.1	a .9	a 8.3	a 250	a 237.97	102	a 51.43

a These averages were apparently obtained by adding together the industry averages and dividing the sum by the total industries, 20, and hence take no account of the number of individuals in each industry. True averages might vary considerably from those here given.

LABOR ORGANIZATIONS.—Two forms of blanks were used in gathering the statistics of labor organizations—one contained interrogatories submitted to the secretaries of the organizations and the other inter-

rogatories to which the members were requested to furnish replies. Information was solicited concerning average wages, working hours, days employed, apprentices, dues and benefits, age, nativity, conjugal condition, number in family, number who owned homes or shares in building and loan associations, etc. Two hundred and seventeen organizations, representing 66 trades and callings, with a membership of 19,081, were reported by the secretaries. The average daily wages for the entire state was given as $2.34, and the average working hours per day 9.7. The average daily wages for apprentices was 98 cents. The average weekly dues of labor organizations was reported as 11.3 cents. One thousand one hundred and forty-two individual members reported their average age as being 33 years and their average daily wages $2.40. Of the number reported 895 were native born, 244 owned their homes, and 249 owned shares in building and loan associations, the shares aggregating in value $126,621. The statistics for each organization are given in detail as reported by the secretaries and by the members. The results are summarized by cities, and it is believed the tables represent fully 90 per cent of all the labor organizations of the state.

DOMESTIC LABOR.—The inquiry in regard to domestic labor was designed to ascertain the actual economic condition of domestic labor in the principal cities of the state. Six hundred and thirty-eight representative reports were secured from the eight largest cities, the number for each city being in proportion to the population. Care was taken to secure the reports from different sections of the respective cities. The results are presented by totals for the different cities under the following general heads:

1. Personal condition of domestics.
2. Parents of domestics.
3. Work and wages of domestics.
4. Earnings, expenses, and savings of domestics.

The statistics are analyzed with great care and at considerable length. Only a few of the important facts can be presented here, and they may be summarized as follows:

DOMESTIC LABOR.

City.	Number.			Born in—		Reared in—		Read and write.	
	White.	Colored.	Total.	United States.	Foreign countries.	City or town.	Country.	Yes.	No.
Indianapolis	168	66	234	166	68	90	144	193	41
Evansville	79	23	102	95	7	33	69	92	10
Fort Wayne	70	.....	70	48	22	30	40	67	3
Terre Haute	57	5	62	53	9	22	40	57	5
New Albany	31	17	48	45	3	17	31	41	7
South Bend	45	1	46	20	26	20	26	45	1
Richmond	34	6	40	35	5	24	16	37	3
Lafayette	36	.....	36	25	11	24	12	33	3
Total	520	118	638	487	151	260	378	565	73
Per cent	82	18	.....	76	24	40	60	89	11

DOMESTIC LABOR—Concluded.

City.	Occupation.			Average—			
	House-work.	Cook.	Other domestic work.	Age.	Earnings of past year.	Places employed in.	Saved in past year.
Indianapolis	120	61	53	26	$145.77	1.8	$23.86
Evansville	60	24	18	26	121.27	1.6	17.19
Fort Wayne	54	7	9	23	118.35	1.7	15.45
Terre Haute	50	8	4	26	124.40	1.9	14.45
New Albany	30	11	7	27	117.22	1.6	21.46
South Bend	38	5	3	23	145.12	1.7	27.35
Richmond	28	5	7	26	122.25	1.5	25.67
Lafayette	27	6	3	24	130.94	1.5	28.61
Total	407	127	104	a 25	131.97	a 1.7	a 21.75
Per cent	64	20	16	.....	.....	.....	.....

a These averages were apparently obtained by adding together the city averages and dividing the sum by the total cities, 8, and hence take no account of the number of individuals in each city. True averages might vary considerably from those here given.

COAL MINING.—The statistics relating to coal mining, as reported by the operators of 71 coal mines in Indiana, representing an invested capital of $1,374,440 and a yearly wage account of $2,473,806, are shown for each mine; also individual reports for 961 miners representing 81 mines. The data were obtained by a personal canvass, "and may be said to show, not approximately, but correctly, the matters which it was designed to call out by the questions." The questions addressed to the miners obtained informaton concerning age, social relations, nativity, hours of work, cost of and price paid for mining coal, daily wages, net earnings, etc. The presentation is a complete showing for the coal mining industries of the state.

IRON, WOOD, GLASS, AND MISCELLANEOUS INDUSTRIES.—The statistics of iron industries, wood industries, miscellaneous industries, and the glass industry were compiled from returns secured on a personal canvass of 375 establishments, 101 of which were engaged in various iron industries, exclusive of blacksmith and repair shops, 163 in the manufacture of articles in which wood is the exclusive or chief material, 45 in the manufacture of glass, and 66 in miscellaneous industries. The establishments report the employment of 40,253 hands, and of this number individual reports were secured from 2,423, distributed as follows: 577 in the iron, 1,035 in the wood, 134 in the glass, and 677 in the miscellaneous industries. The reports of the proprietors and of the employees, respectively, are published in detail by cities, industries, and occupations.

The proprietors' reports furnish data as to capital, cost of materials, value of products, working time, number of employees, total wages, highest and lowest daily wages, and average wages of boys and of women and girls; also as to strikes and increase or decrease in wages.

The following statements show the totals for the different groups of industries under the principal heads of this branch of the inquiry:

VALUE OF PRODUCTS, WAGES, ETC., IN VARIOUS INDUSTRIES.

Industry.	Establishments.	Buildings, grounds, and machinery.	Cost of materials.	Value of products	Total wages.
Iron	101	$5,830,231	$9,146,897	$18,069,340	$4,174,891
Wood	163	4,615,430	9,994,589	18,403,267	4,900,008
Glass	45	4,987,635	1,865,805	6,493,518	2,950,758
Miscellaneous	66	4,358,993	15,816,082	21,009,450	2,459,808
Total	375	19,792,289	36,823,373	63,975,575	14,485,465

AVERAGE DAILY WAGES IN VARIOUS INDUSTRIES.

Industry.	Employees.			Average daily wages.					
						Skilled labor.		Unskilled labor.	
	Men.	Boys.	Women and girls.	Boys.	Women and girls.	Highest.	Lowest.	Highest.	Lowest.
Iron	10,514	1,250	146	$0.74	$1.04	$3.75	$1.92	$1.50	$1.13
Wood	11,393	1,842	310	.71	.90	2.85	1.72	1.48	1.11
Glass	5,163	1,536	195	.82	.67	9.48	3.34	1.99	1.26
Miscellaneous	4,035	466	3,403	.79	.88	3.20	1.82	1.45	.91
Total	31,105	5,094	4,054	.....	.....	.....	.....	.....	.....

The employees' statements contain data as to age, apprenticeship, number of years engaged in present occupation, working time, highest, lowest, and average wages, social condition, income, expenses, etc., for the different classes of employees in each industry treated.

The principal facts reported by the employees are summarized as follows:

CONDITION, EARNINGS, ETC., OF EMPLOYEES IN VARIOUS INDUSTRIES.

Industries.	Employees.					Average.						Savings.	
						Wages.							
	Number reporting.	Married.	Single.	Owning homes.	Renting.	Highest.	Lowest.	Average.	Hours per day.	Days per year.	Annual income.	Employees who saved.	Total savings for year.
Iron	577	468	109	223	232	$2.65	$2.26	$2.45	9.1	257	$610	168	$24,164
Wood	1,035	774	261	356	397	2.15	1.93	2.03	9	274	558	199	22,621
Glass	134	108	26	22	85	4.80	4.08	4.41	8.4	212	1,022	83	11,345
Miscellaneous	677	255	422	76	161	1.86	1.44	1.59	10	259	448	61	8,459
Total	2,423	1,605	818	677	875	.....	.....	.....	.....	.....	.....	511	66,589

ECONOMIC, SOCIAL, AND CENSUS STATISTICS.—Under this caption are presented county, city, and town indebtedness and expenses, also real estate transfers, mortgages, and satisfactions recorded in the several counties of the state. These tables show also the number and condition of inmates of asylums, number of divorces, with the causes of complaint, number of persons naturalized, and number of jail incarcerations. Some of the results of the Eleventh Census of the United States are reproduced.

CEREAL CROPS AND FARM ANIMALS.—The figures and analysis given relating to cereal crops and farm animals constitute a full presentation of the agricultural industries of the state, by county and by state totals.

RAILROADS.—The statistics relating to railroads show in the usual form the totals for 31 roads that were in operation in the state in 1893 and 25 in 1894, some companies not furnishing their reports for 1894 in time to be included.

MICHIGAN.

The Twelfth Annual Report of the Bureau of Labor and Industrial Statistics of Michigan, for the year ending February 1, 1895, presents the results of investigations into the following subjects: Farm laborers, male, 236 pages; domestic labor, female, 101 pages; statistics from farm proprietors, 109 pages; miscellaneous agricultural statistics, 55 pages; strikes, 21 pages; prisons and prison labor, 4 pages.

FARM AND DOMESTIC LABOR.—The statistics presented under the titles of "Male farm laborers" and "Female domestic labor" are the results obtained from reports made by 5,600 male farm laborers and 2,300 female domestic laborers. The data were collected by the enumerators while engaged in taking the state census. The schedules contained numerous questions as to nationality, age, working time, wages, extras, increase or decrease in wages during given periods, effect of immigration on occupation, etc., as well as questions concerning social conditions. Some of the important results of both investigations are combined in the following summary:

LABORERS ON FARMS AND DOMESTIC SERVANTS.

Items.	Male farm laborers.	Female domestics.
Total number considered	5,600	2,300
Americans	3,219	1,431
Germans	726	312
All other nationalities	1,655	557
Average monthly wages	$17.84	.....
Average weekly wages	.....	$1.85
Average daily wages	$0.92	$0.59
Total earnings past year	$1,018,388	$168,464
Average yearly earnings	$181.85	$73.24
Amount of money saved past year	$196,891	$34,528
Average amount for those who saved	$77.67	$34.80
Number reporting increase in wages past five years	335	324
Number reporting decrease in wages past five years	3,395	675
Number who say times better than five years ago	146	177
Number who say times worse than five years ago	4,542	1,367
Number who say immigration injures their occupation	3,466	834
Average daily wages of foreigners in native land	$0.557	$0.25
Number of foreigners who say conditions for saving money are better than in native land	1,099	348

In some of the returns answers were not given to all the questions. It therefore does not follow that the difference between the number given for any particular item in the above summary and the total number considered represents the number reporting the reverse from what is shown. The report presents the statistics in detail for each laborer, male and female, from whom returns were received.

STATISTICS FROM FARM PROPRIETORS.—These facts were furnished by 935 farmers in Michigan. The effort was made to obtain reports from a reasonable number in each county, that the showing might be general for the state. The inquiries not only covered the question of wages and the condition of wage workers on farms, but also questions pertaining to the staple products of the farms. The average yield and cost of production of leading crops are shown. The number of farmers reporting profit and no profit in stock raising, in dairying, and in poultry raising is also given.

The details shown by the tables are numerous and worthy of careful study, but only a few of the many important results can be stated. The average number of years in which those reporting had been engaged in farming was 25.7. Four hundred and fifty-four employed female help, the average weekly wages for such labor being $1.94. The average monthly wages for males was $18.85. Adding the value of extras, such as fuel, pasture for cow, house rent, etc., made the average daily wages paid male farm laborers for the entire state over $1. The average yield and the average cost of raising per acre, including interest on value of land, is shown for a number of farm products, the results being summarized as follows:

AVERAGE YIELD AND COST PER ACRE OF RAISING CERTAIN FARM PRODUCTS.

Product.	Yield per acre.		Cost of raising per acre.	
	Farmers reporting.	Average (bushels).	Farmers reporting.	Average.
Wheat	859	18.8	737	$9.78
Corn	849	57.4	696	10.35
Oats	864	35.1	692	7.74
Barley	161	28.5	167	7.84
Potatoes	763	107.9	558	14.84
Beans	254	16.1	237	8.42
Peas	239	16.4	189	7.71
Clover seed	268	2.2	214	4.90
Hay	881	a 1.4	688	5.42
Mint	13	b 18.3	11	15.16

a Tons. b Pounds.

About 56 per cent of the farmers reporting are satisfied that there is a profit in dairying, less than 37 per cent that there is a profit in fattening cattle for market, and only 15 per cent that there is a profit in raising horses for sale. Two-thirds of those canvassed say there is a profit in raising poultry for market, and 82 per cent that there is profit in fattening hogs for market. Six hundred and thirty-four of the 935 reporting say there is profit in farming, 162 say there is no profit, and 139 do not answer the question.

These statistics are followed by general remarks from a number of leading farmers in different sections of the state on methods, profits, and the desirability of farming as an industry.

MISCELLANEOUS AGRICULTURAL STATISTICS.—The presentations under the head of miscellaneous agricultural statistics are compilations

from the United States census of 1890 and the state census of 1894. They show the size and value of farms with the value and quantity of farm products, by counties and by townships.

STRIKES.—Each strike that occurred in the state during 1894 is described, and is followed by general information concerning some of the large strikes that occurred elsewhere.

PRISONS AND PRISON LABOR.—The number of inmates in the state prison and in the different houses of correction during 1894 is given. The number engaged on contract work, with the average price per day for their work, is shown; also the number engaged on state work.

MINNESOTA.

The Fourth Biennial Report of the Bureau of Labor of Minnesota is for the years 1893 and 1894. In the introduction to the report the law approved April 19, 1893, changing the name of the office from the Bureau of Labor Statistics to the Bureau of Labor, is quoted, and the general work of the bureau outlined. The contents of the report are as follows: Chattel mortgages and pawnbrokers' loans, 43 pages; agricultural statistics, 66 pages; the apprentice system, 257 pages; mortgage statistics, 164 pages; factory inspection, 125 pages.

CHATTEL MORTGAGES AND PAWNBROKERS' LOANS.—The statistical information presented under this title is the result of an examination of the contracts, leases, mortgages, and other instruments, having the force of chattel mortgages, filed at the city clerk's office of Minneapolis during the year 1893. For the pawnbrokerage business of the city during the same year the data were obtained from the returns made to the chief of police.

The instruments classified as chattel mortgages are divided into two general classes—the first including those executed to secure the cost price of goods purchased and the second those executed to guarantee the repayment of borrowed money. Some of the principal facts concerning the first class are summarized as follows:

INTEREST ON CHATTEL MORTGAGES, MINNEAPOLIS, 1893.

Interest or credit charge.	Number of instruments.	Goods purchased.					
		Household goods.	Musical instruments.	Carriages, wagons, live stock, etc.	Merchandise.	Farm machinery.	Miscellaneous.
Six per cent per annum	20	.....	7	.....	2	.....	11
Seven per cent per annum	100	5	76	2	1	1	15
Eight per cent per annum	842	13	763	4	6	.....	56
Ten per cent per annum	842	781	23	15	2	.....	21
No interest charged	3,591	2,888	124	20	68	3	488
Five per cent addition	5,540	5,540	.....	.....	.....	.....	.....
Total	10,935	9,227	993	41	79	4	591

The number of instruments under the head of "no interest charged" is slightly greater than it actually should be by the inclusion of a few for which the record contained no information as to the interest charged.

Household goods and musical instruments taken together make up about 93 per cent of the sales where chattel mortgages were executed to secure the cost price of the articles purchased. The selling price of the goods purchased by residents of Minneapolis, on the chattel mortgage system, during the year 1893 amounted to $772,537.36. The instruments making the record of these sales show a cash payment at the time of purchase of $110,827.90, leaving a debt of $661,709.46. The average duration of the credit was 5.35 months. These amounts do not include sales for cash or unsecured credit, nor for secured credit to parties residing outside of the city limits.

The chattel mortgages given to secure the repayment of borrowed money are also divided into two classes—those at legal and those at usurious and extortionate rates of interest. The division, however, can only be made approximately. Of chattel mortgages made to secure loans and not known to be extortionate in their interest charges there were 2,171 in 1893, representing an indebtedness of $515,845.06, the average for each mortgage being $237.61, with a duration of 5.36 months. It is believed, however, that some 500 of these loans were at usurious interest, which would reduce the number at strictly legal interest to 1,671, representing a mortgage debt of $495,600.06, the average of the loans being $296.59, and the life of the mortgage 5.75 months.

There were 2,211 usurious loans reported for the year, the face of the mortgage debt amounting to $89,310.02, on which the borrowers probably realized about $80,000 in cash. The borrowers giving these mortgages, so far as could be ascertained, always executed liens for sums about 10 per cent greater than the loans secured by them. The average debt for these loans was $40.49, hence the average loan or money obtained was, approximately, $36. Two-thirds of these loans were secured on household goods. Selecting 95 typical usurious loans, the rate of interest was found, upon inquiry of the borrowers, to range from 41 to 480 per cent per annum. Including the loans classed as legal, but probably usurious, there were, approximately, 2,700 usurious loans in the city during the period covered, representing $110,000, upon which the borrowers obtained less than $100,000 in cash.

There were twenty-five licensed pawnbrokers doing business in Minneapolis in 1893, who paid as license fees $2,458.34. Twenty-three thousand and ninety loans were reported by these brokers, the total amount borrowed being $142,248.12, and the average for each pledge $6.16. There were 5,425 purchases reported by pawnbrokers, the total amount paid therefor being $15,055.19.

The statistics of chattel mortgages and pawnbrokers' loans are presented in detail and accompanied by an extended textual discussion, in which various loan institutions in the United States and in foreign countries, established primarily for the relief of the poor, are described.

AGRICULTURAL STATISTICS.—This is the result of an inquiry started in the summer of 1893 and designed to ascertain something of the actual and relative prosperity, the elements of success, and the causes of failure among the farmers of the state. The data were obtained by agents of the bureau, who secured reports from 1,555 farm owners and 243 farm tenants. In securing these reports counties and townships were selected that were supposed to be representative of the entire state. All the farms in each township selected were visited, and so far as possible returns were secured from each. The following summaries indicate the character of some of the principal branches of the inquiry and the results obtained:

VALUE OF AGRICULTURAL PROPERTY.

State or country of birth.	Farmers.	Tenants.	Years' farming in Minnesota.		Value of possessions at beginning.		Value of present possessions.	
			Farmers.	Tenants.	Farmers.	Tenants.	Farmers.	Tenants.
Minnesota	144	39	1,725	382	$196,305	$10,755	$793,466	$43,860
United States	377	78	6,950	740	437,707	26,440	2,891,937	119,504
Germany	317	49	6,157	307	266,930	15,525	1,843,318	67,690
Great Britain	95	5	2,289	63	72,100	1,050	615,234	3,906
Scandinavia	464	58	6,960	518	142,486	17,375	1,630,047	55,313
Bohemia	94	7	1,576	33	71,660	1,000	338,096	5,752
British Possessions	47	6	1,044	25	48,700	850	274,898	6,091
Other countries	17	1	382	8	3,610	.....	62,708	2,722
Total	1,555	243	27,083	2,076	1,239,498	72,995	8,449,704	304,838
Averages	.....	.....	17	9	797	300	5,434	1,254

INDEBTEDNESS OF FARMERS AND AGRICULTURAL TENANTS.

State or country of birth.	Amount of indebtedness.		Net possessions.	
	Farmers.	Tenants.	Farmers.	Tenants.
Minnesota	$103,237	$5,560	$690,229	$38,300
United States	311,997	17,016	2,579,940	102,488
Germany	166,818	9,784	1,676,500	57,906
Great Britain	53,224	600	562,010	3,306
Scandinavia	284,922	14,255	1,345,125	41,058
Bohemia	60,691	2,295	277,405	3,457
British Possessions	23,965	1,500	250,933	4,591
Other countries	3,900	.....	58,808	2,722
Total	1,008,754	51,010	7,440,950	253,828
Averages	649	210	4,785	1,045

The information contained in each of the 1,798 reports is shown in detail, including the several items constituting the total value of present possessions given in the above statement. The results are summarized and the averages shown by counties and by nationalities. The following statements are taken from the comments on the figures:

The possession of a sufficient amount of capital at the outset is the most potent single factor in the accumulation of farm wealth.

Of the 1,798 farmers visited, 17, or less than 1 per cent, had, by reason of debts and insufficient capital, dropped back from farm ownership to tenancy, while 235 had risen from tenancy to farm ownership after an average life as tenant of four years.

A little less than one-half of the tenants visited had such a small amount of capital that they rented farms for one-half of the produce, the landlord furnishing live stock, farm implements, and seed, or a large proportion thereof.

Thirty-one of the 1,555 owners, at some time in their lives, had lost a farm by mortgage foreclosure, but were able in a short time to retrieve their fortunes and regain their earlier place as farm owners.

The American-born farmer is seen to succeed considerably better than any body of newcomers from Europe.

THE APPRENTICE SYSTEM.—The treatment of the subject of the apprentice system is almost entirely textual. The history of the apprentice system is traced from its origin in the ancient craft or trade guilds of the Middle Ages. The relation between apprenticeship and strikes is treated at considerable length. The statistics of strikes involving the apprentice question, as published for Great Britain, the United States, and the state of New York, are reproduced to show the extent of the disturbances into which it enters as a factor. While in all three reports the apprentice question is shown to have been the source of some trouble, only a very small proportion of the industries have any serious trouble over it.

In order to secure as much information as possible in regard to the relation between apprenticeship and trade unions, and especially to ascertain whether the unions were controlled by the foreign-born population and whether the American boys were discriminated against in securing membership, the bureau obtained from members of trade unions in the state statements showing for each workman his birthplace, where he learned his trade, the years served as apprentice, and kindred information. Returns were received from 1,985 workmen, and of this number 58.54 per cent were born in the United States and 41.46 per cent were foreign born. On the other hand returns from 133,762 males of voting age in the state showed that only 38 per cent were native born. In other words, the percentage of native born workmen in the trade unions, or 58.54 per cent, was 1.5 times as great as the percentage of native born in the voting population, or 38 per cent. There were 1,624 members of the trade unions, or 81.86 per cent, who acquired their trade in the United States, while only 361, or 18.14 per cent, acquired their trade in foreign lands.

The attitude of a number of national and international labor organizations toward apprentices and cheap labor is discussed. The rules and regulations of the several organizations on this subject are quoted, and in those unions where the membership is composed largely of foreign-trained craftsmen facts are presented showing the cause or reason for the same. Where the unions are known to have had strikes in recent years relating to the employment of apprentices, all available facts relating to the dispute are presented. The actions of several associations of employers on the apprentice question are referred to, particular attention being given to the attitude of the National Association of Builders of the United States of America on this subject.

The last 11 pages of the discussion of the apprentice system consist of a summary in which the history of the system and its present status in the industries and trade unions of the United States is given in concise statements.

MORTGAGE STATISTICS.—The different sections of this subject are treated under the following heads: First, real estate mortgage indebtedness; second, mortgage foreclosures; third, redemptions of mortgage foreclosures. Under the first head are shown data relating to the mortgages placed on record, the amount of taxable land as reported by the state auditor, and the general agricultural statistics gathered by the United States census, and comparisons between the same and deductions therefrom. These statistics, as a rule, cover the period from 1880 to 1889, but for eight typical counties the bureau secured and presents statistics of mortgages and taxable land for each year from 1859 to 1893. All of the statistics presented under this general head of mortgages were gathered with the thought that possibly such information would throw new light upon the true relation of mortgage debt to the development and financial prosperity of the average Western community, agricultural or urban. In addition to statistical tables presenting the data of mortgages, agriculture, and taxable property by counties and groups of counties, the report contains graphic tables showing the leading facts for the different branches of the investigation. In the discussion of the figures the increase or decrease of the actual or relative mortgage debt in the different counties is traced, and careful explanation given of the various causes controlling the results shown.

The amount of mortgages placed on record in Minnesota and the acres mortgaged increased relatively, as well as actually, with some irregularity, from 1861 until about 1880. Since that date it has relatively continuously, though irregularly, decreased. In 1893 there was relatively 1 acre of farm land mortgaged for every 2.2 acres thus mortgaged in 1880, and there was $1 of incumbrance on such farms for every $1.80 of such incumbrance in the earlier year. While there had been this relative decrease of farm mortgages there had been a slight increase in the total actual amount of outstanding mortgage debt. But the farm debt of 1893 was, if any larger than that of 1880, increased by an amount so slight that such addition could not have exceeded 1 per cent of the property accumulated by the farmers of Minnesota and added to their former possessions between 1880 and 1893. The statistics relating to mortgage foreclosures are contained in five tables, which give the number, amount, and acreage of foreclosures by counties and groups of counties for each year during the period from 1880 to 1893, and for eight typical counties from 1859 to 1893, with percentages of taxable land sold on foreclosure and of mortgaged acres foreclosed.

The percentage of foreclosures of the mortgages executed and the general movement of foreclosure in city and agricultural property are

treated separately. The discussion shows the salient changes in the condition of agriculture and the causes affecting wheat prices and farm prosperity and the foreclosure of farm mortgages in the past thirty-five years in Minnesota.

The following extracts are selected from a list of fifteen conclusions reached after a careful analysis of the figures:

When the foreclosures of one year are compared with the mortgages recorded four years before [four years being the life of the average mortgage], it is found that the foreclosures on farm and acre property in the agricultural counties of the state in 1892 and 1893 were relatively 40 to 50 per cent smaller in number and in acres and amounts involved than in 1884 and 1885.

Between the years 1880 and 1881 and the years 1892 and 1893 the foreclosures on acre property so decreased that relatively only one farm was sold in the latter years by foreclosure where three farms were sold in the earlier, and that one acre of land was foreclosed where two had formerly been, and that the amounts of foreclosure sales had declined so, relatively, that only $1 of such sales is now occurring where in 1880 there were $4 of the same.

The foreclosures of 1892 and 1893 were relatively only one-fifth as numerous as twenty-four years before, in 1869 and 1870. The acres sold were only one-fourth and the amounts involved one-fifth as great in the latter as in the earlier years.

In the history of the state there can be traced two sources of mortgage foreclosure: One arises from the imperfection of the farm owner, that which is due to his lack of experience, his shiftlessness and want of character, or knowledge, or energy; the other is crop failures and varying prices for wheat.

In thirty-five years the rates of interest for farm loans have decreased from the prevailing rate of from 3 to 10 per cent a month in Mower County in 1859 and 1860 to an average of not far from 8 per cent per annum in 1893.

Crop failures by the introduction of diversified farming have ceased to be as great a possible factor for evil as between 1876 and 1881. Wheat prices as a special disturbing factor are becoming of less and less importance with the passage of years.

The data relating to the redemptions of mortgage foreclosures are not considered as complete or perfect. The redemptions for which statistics were secured include only those transactions whereby the original owner recovered possession by means of a legal instrument, placed upon record, usually designated a redemption. Many owners whose lands had been sold under foreclosure proceedings, instead of securing a redemption, obtained a quitclaim deed of the land. These redemptions by quitclaim deeds make up at least one-third of the total redemptions of the state, and in some counties one-half.

The statistics are presented only by groups of counties, and cover the period from 1880 to 1893, and for a group of eight typical counties from 1859 to 1893. From the textual consideration of the subject are taken the following extracts:

In the state as a whole there is an increase in the foreclosures on acres, but a greater one in redemptions. The reverse is the case with

lots, and shows that the financial condition of the farmers and owners of acre property has increased more than their debts, while the opposite is the case with the owners of other real estate.

In the sixty-five agricultural counties of the state there were in 1880 and 1881 for every 100 foreclosures on acre property 16 redemptions, while in 1892 and 1893 there were 22.6. In the earlier years there were for every $100 of foreclosures $12.03 of redemptions, while in the latter years there were $16.21.

Comparing all foreclosures and redemptions in the city counties it is found that in 1880 and 1881 there were for every 100 foreclosures 33.3 redemptions, while in 1892 and 1893 there were only 6.4, or only one-sixth as many. In 1880 and 1881 for every $100 of foreclosures on property in city counties there were $20.84 of redemptions, while in 1892 and 1893 there were only $5.53, or barely one-fourth as much.

Making allowance for the redemptions by quitclaim deeds in Minnesota [for which no data were secured] it becomes apparent that from one-fourth to one-third of all farm mortgages foreclosed in the state during the last few years were, or will be, redeemed by the owners of the farms.

FACTORY INSPECTION.—This subject constitutes Part II of the report of the bureau. Guards for dangerous machinery is the first subject treated, the discussion containing 16 illustrations of various machines to which different forms of guards have been attached. The statistics of accidents in the factories and mines of the state show the character of the machine on which the accident happened, or the cause of the same, and the character of the injury. There were 631 accidents reported between April 1, 1893, and December 31, 1894. Forty-three of these were reported by mines and 588 by factories.

The laws of the state regulating the employment of women and children, and various laws bearing on labor and labor organizations, are quoted and amendments recommended.

The condition of guards for switch rails, guard rails, and frogs in 1893 and 1894 on the various railroads in the state is shown.

Between May 1, 1893, and December 31, 1894, the inspectors visited 1,388 different factories and mills in the state. At the time of the first inspection in 1893 these establishments employed 38,866 operatives, of whom 34,436 were males and 4,430 females. The name and address, facts concerning employees and wages, and the various changes in the buildings and machinery ordered by the inspectors are given for each factory inspected. The detail tables are summarized according to the character of the changes ordered and by industries.

MISSOURI.

The Sixteenth Annual Report of the Bureau of Labor Statistics and Inspection of Missouri is for the year ending November 5, 1894. The first pages of this report contain a discussion of existing conditions and tendencies of the times, and a synopsis of the current work of other labor bureaus. The substance of the report is divided as follows: Earnings of employees in lead mines, 33 pages; statistics of

manufactures, 149 pages; factory inspection, 35 pages; crimes and costs, 125 pages; building and loan associations, 138 pages; strikes, 19 pages.

EARNINGS OF EMPLOYEES IN LEAD MINES.—Under this subject reports for 1,281 employees in three representative lead mines in different sections of the state, concerning the number of working days, days actually worked, and actual and average earnings are given in detail for each employee. The results are summarized as follows:

TIME AND EARNINGS OF EMPLOYEES OF LEAD MINES, 1893.

Items.	Total.	Name of company.		
		Doe Run.	Center Creek.	Victor.
Total number of men employed	1,281	709	161	411
Number of men required to have done the work if each man had worked each working day in the year	318+	206	71+	40+
Per cent of days worked of working days in period	79+	79.73	82+	73+
Average daily wages for days worked in period	$1.60	$1.49	$1.82	$1.76
Average daily wages for working days in period	$1.27	$1.19	$1.51	$1.29
Average earnings for each man	$123.41	$129.23	$251.72	$53.41
Average number of days each man worked	77 —	90.50+	137	30+
Average number of working days to each man	97 —	113.73+	166	41+
What the average annual earnings would have been if each man had worked every working day in period at the average rate of daily wages for days worked	$497+	$440.20	$564.20	$545.60

STATISTICS OF MANUFACTURES.—The statistics of manufactures collected by the bureau are preceded by a reproduction and discussion of the results of the United States census. The bureau secured reports from 757 private firms and 716 corporations. The number of male and female partners and stockholders, aggregate and average values of capital, stock used, wages, goods made, and proportion of business done are shown by industries, the summary for all industries being as follows:

MANUFACTURING INDUSTRIES, 1893.

Establishments reporting:	
Number of private firms	757
Number of corporations	716
Total	1,473
Number of partners:	
Males	1,062
Females	21
Total	1 083
Number of stockholders:	
Males	325
Females	8,5
Banks, trustees, etc	16
Total	7,307
Amount of capital invested	$101,457,303
Stock of material used	$82,095,133
Other supplies	$11,481,109
Total	$93,576,242
Wages	$25,840,921
Value of goods made and work	$153,896,260
Average proportion of business, per cent	67
Average number of days in operation	274

The building and loan associations in the city of Saint Louis are treated separately from those in the state exclusive of the city, and the totals combined. Three hundred and fifty-five active associations are given for the year 1894, reports being received from 314, while 41 known to be in existence failed to make reports. One hundred and eighty-nine of the associations were in the city of Saint Louis and 166 in the state outside of the city. Three hundred and seventy-six associations were reported for the state in 1893; 21 others had been incorporated in 1893, making the total number of associations having a nominal existence 397. If to the number 355, supposed to be active in 1894, be added those in liquidation and chartered in 1894 previous to July 1, the total number will be about the same as 1893. Some of the totals shown for all associations for 1894 are summarized as follows:

BUILDING AND LOAN ASSOCIATIONS, 1894.

Items.	Saint Louis.	State, exclusive of Saint Louis.	Total.
Assets	$22,303,446.15	$11,101,149.88	$33,404,596.03
Liabilities:			
Value of shares outstanding, including gain	$17,995,099.59	$9,136,053.10	$27,131,152.69
Other liabilities, including undivided profits	4,308,346.56	1,965,096.78	6,273,443.34
Total	22,303,446.15	11,101,149.88	33,404,596.03
Receipts:			
Cash on hand at close of last fiscal year	$230,535.81	$225,219.72	$455,755.53
Cash receipts in last fiscal year, exclusive of loans repaid	8,728,627.45	3,345,618.68	12,074,246.13
Loans repaid	1,866,675.95	829,169.12	2,695,845.07
Total	10,825,839.21	4,400,007.52	15,225,846.73
Disbursements:			
Loans on mortgage security	$1,929,614.95	$1,682,241.23	$3,611,856.18
Withdrawals	2,787,142.86	1,630,897.03	4,418,039.89
Borrowed money repaid	4,329,279.38	379,253.81	4,708,533.19
Other disbursements, including cash on hand	1,779,802.02	707,615.45	2,487,417.47
Total	10,825,839.21	4,400,007.52	15,225,846.73
Profits:			
Expenses	$2,374,584.35	$776,321.93	$3,150,906.28
Net profits	5,307,559.68	2,340,237.16	7,647,796.84
Gross profits	7,682,144.03	3,116,559.09	10,798,703.12
Number of shares issued during the year	21,687.95	39,560.00	61,247.95
Number of shares withdrawn during the year	63,069.33	42,289.75	105,359.08
Number of shares loaned on during the year	7,201.51	10,129.29	17,330.80
Present total number of shares loaned on	95,162.01	48,112.39	143,274.40
Present total number of free shares	122,858.98	112,411.67	235,270.65
Present total number of all shares	218,020.99	160,524.06	378,545.05
Total number of borrowers	7,287	10,474	17,761
Total number of nonborrowers	20,608	22,730	43,338
Total number of persons who are shareholders	27,895	33,204	61,099
Homes secured and paid for	111	1,082	1,193
Number of homes partially paid for	7,226	7,004	14,230

STRIKES.—A brief account is given of two interstate strikes—the strike originating with the employees of Pullman's Palace Car Company, of Pullman, Illinois, and the coal miners' strike of April 21; also of several minor strikes in the city of Saint Louis.

The report is accompanied with an industrial map showing the location of all mines and railroads in the state and a résumé of the mineral statistics.

WISCONSIN.

The Sixth Biennial Report of the Commissioner of Labor, Census and Industrial Statistics of Wisconsin, for the years 1893 and 1894, treats of the following subjects: The building trades, 64 pages; statistics of manufactures, 55 pages; synoptical report of and orders issued by inspectors of factories and workshops, 206 pages.

BUILDING TRADES.—The first presentation consists of reports from persons engaged in various branches of the building trades in different sections of the state. Answers were obtained to questions concerning apprenticeship, system of promotion of apprentices, did best workmen serve as apprentices in Europe, trouble in hiring first-class workmen, hours of labor, strikes, etc. Reports from employers, representing 2,674 employees, giving the actual wages per hour, are also shown, the statistics being grouped by occupations and cities and covering all branches of the building trades. The wages paid per hour in these trades in the city of Milwaukee are placed in comparison with the wages in similar trades in the several cities of the United States. Considering the general average rate per hour for all the trades involved, the results for some of the cities are given as follows:

RATES OF WAGES PER HOUR IN BUILDING TRADES IN VARIOUS CITIES, 1893.

City.	Wages per hour.
Milwaukee, Wisconsin	$0.296
Atlanta, Georgia	.213
Buffalo, New York	.286
Butte, Montana	.476
Charleston, South Carolina	.216
Cleveland, Ohio	.301
Jacksonville, Florida	.240
Kansas City, Missouri	.286
Lowell, Massachusetts	.274
Newark, New Jersey	.332
Omaha, Nebraska	.344
Philadelphia, Pennsylvania	.325

STATISTICS OF MANUFACTURES.—The statistics of manufactures show for each of 84 different industries the number and per cent of employees receiving stated daily wages including the per cent receiving less than $1 per day. The total amount of wages paid in different industries in the state is shown for each year from 1888 to 1893, inclusive, and the average annual earnings per employee in the different industries for each year from 1889 to 1893, inclusive.

The following statement presents the average annual wages paid in some of the leading industries treated in the summary table:

AVERAGE ANNUAL WAGES PAID IN VARIOUS INDUSTRIES, 1889 TO 1893.

Industry.	1889.	1890.	1891.	1892.	1893.
Agricultural implements	$427.58	$558.41	$515.87	$543.98	$649.34
Beef and pork packing	531.17	498.89	571.75	496.30	438.17
Clothing	538.17	271.55	519.90	500.03	376.43
Coffee and spice mills	785.60	723.12	500.00	597.56	922.65
Flour and feed	656.72	609.32	709.84	657.64	470.22
Furniture, not including chairs	400.69	370.21	467.67	366.64	338.84
Iron works, malleable	350.75	546.03	409.77	394.73	405.21
Lumber, laths, and shingles	334.84	524.12	532.29	348.25	341.10
Marble, cut stone	456.99	522.38	587.32	479.40	390.10
Paper and pulp	404.10	404.03	368.54	412.96	406.00
Plumbers' and gas-fitters' supplies	.....	.....	.....	485.83	409.05
Printing, publishing, and bookbinding	518.09	441.14	447.09	455.97	476.82
Railway shops	509.14	525.93	569.12	496.51	536.28
Rolling mills	552.71	592.08	475.42	784.25	668.19
Sash, doors, and blinds	373.15	349.88	378.46	309.54	387.22
Textiles	314.14	269.06	253.62	230.18	276.92
Tobacco	453.21	455.77	426.24	324.48	542.60
Wagon stock	.....	.....	.....	418.02	399.06
Wagons, carriages, etc.	366.35	463.09	421.44	411.30	354.50
Windmills, tanks, and pumps	467.25	825.56	500.01	539.71	530.57

Comparisons are also made between the total wages and the number of employees in different industries in the city of Milwaukee and those in the state exclusive of the city.

An idea of the magnitude of the different industries in Milwaukee and in the state exclusive of the city may be obtained from the following statement, which shows the total for fifteen selected industries:

EMPLOYEES AND TOTAL WAGES IN FIFTEEN SELECTED INDUSTRIES IN MILWAUKEE AND IN WISCONSIN, 1893.

Industry.	Milwaukee.		State, exclusive of Milwaukee.	
	Employees.	Wages.	Employees.	Wages.
Agricultural implements	363	$212,071	2,259	$1,459,980
Beer and malt	3,678	1,926,289	654	542,001
Boots and shoes	1,680	427,532	1,777	823,662
Cigars	400	136,651	505	221,199
Clothing	1,065	547,527	1,028	239,661
Cut stone, marble	173	81,060	309	87,766
Flour and feed	457	257,616	1,572	560,567
Furniture, chairs	694	229,502	3,772	1,485,163
Iron works, foundries, and machine shops	2,976	1,641,811	2,054	883,370
Nails, tacks	489	154,100	179	64,862
Railway repair shops	208	115,640	5,737	3,129,262
Sash, doors, and blinds	1,305	541,910	2,481	1,311,354
Tobacco	313	125,843	.....	.....
Wagons, carriages, and sleighs	430	147,941	2,758	900,694
Woolens and worsteds	1,020	205,212	1,458	530,201

The percentages of employees at stated daily rates of wages in factories, in 1893, are shown for the state, and on examining the total representing 102,865 employees, it is found that 48.55 per cent received $1.25 and under $2 per day, while but 1.47 per cent received $3.50 and under $4 per day. The results are summarized so as to permit of a ready arison of the relative number at each rate in the different indus-

The amount of loss by fire in factories for each industry from 1885 to 1893, inclusive, is also shown.

FACTORY INSPECTION.—The report headed "Synoptical report of and orders issued by inspectors of factories and workshops" is full of interesting detail concerning the different factories inspected. It gives the description and value of each building, with the number of male and female employees. The summary table shows for each industry the value of new factory buildings, also the value of new machinery added, for 1891–92 and 1893–94, respectively. The totals for 1893–94 are also shown by localities, and the orders of the inspectors for repairs or additions are given in full.

REPORT BY MISS COLLET ON THE STATISTICS OF EMPLOYMENT OF WOMEN AND GIRLS IN ENGLAND AND WALES.

This report of 152 pages, prepared for the labor department of the British Board of Trade, gives statistics bearing on the employment of females in England and Wales, based principally on the following sources of information:

1. Returns made to the labor department in 1894 by cotton, woolen, and worsted manufacturers as to the employment of married women in their mills—specially procured for this report.

2. The statistics of occupations of women and girls at different ages in urban sanitary districts with over 50,000 inhabitants—compiled from the census sheets.

3. The published returns of inquiries recently conducted on the required scale and according to uniform methods—to be found in the census returns of occupations in 1891, and in the board of trade returns of rates of wages in textile trades in 1886.

The report is divided into three parts, dealing, respectively, with census returns of occupations in 1891, labor department returns of the employment of married women in 1894, and board of trade returns of rates of wages in the cotton, woolen, and worsted industries in 1886.

In Part I the census returns of the employment of women and girls in 1891 are compared with those for 1881. In making comparison the increase of population has been taken into account, the numbers of working females being expressed in ratios of the female population over 10 years of age, and these numbers are brought into comparison with the numbers of working males in the same occupations, expressed in similar ratios of the male population.

In Part II statistics from employers in the cotton, woolen, and worsted industries are given, showing the number and proportion of females employed in their mills who in 1894 were married or widowed, and the summarized results are compared with those of the census, as far as possible, with a view to testing their accuracy.

In Part III the broad results of the board of trade rates of wages returns for 1886 are summarized so far as they relate to the employment of women and girls in the cotton, woolen, and worsted industries in England, and an attempt is made to discover whether there is any indication of a relation between the rates of wages and the employment of married women.

The census statistics, presented in Part I of the report, show that more than four-fifths of the working females reported in 1891 were employed in 18 classes or groups of occupations, there having been 349

such classes. Less than 1 per cent of the working females were employed in each of the remaining classes or groups of occupations, and the total number employed in the 331 classes was only 67 per 1,000 of the total female population over 10 years of age.

The following table, derived from tables in Part I, shows the number of working females per 10,000 females 10 years of age and over engaged in each of the 18 classes of occupations referred to above, in each of which upward of 1 per cent of the total number of working females were employed in either 1891 or 1881, and the number of working females per 10,000 females 10 years of age and over employed in the remaining 331 classes of occupations, in each of which less than 1 per cent of the total number of working females were employed. It also shows the number of working females in 1891, at certain age periods, per 10,000 females at such periods, by occupations, and the decennial increases or decreases in the numbers employed:

WORKING FEMALES IN 1891 AT CERTAIN AGE PERIODS PER 10,000 FEMALES AT SUCH PERIODS.

Occupation.	10 and under 15 years.			15 and under 25 years.			25 and under 45 years.		
	Number.	Compared with 1881.		Number.	Compared with 1881.		Number.	Compared with 1881.	
		Increase.	Decrease.		Increase.	Decrease.		Increase.	Decrease.
Employing more than 1 per cent of females who work:									
Domestic servants	665	.....	37	2,744	.....	189	902	57	.....
Milliners, dressmakers, and staymakers	108	41	.....	732	90	.....	331	.....	40
Cotton goods operatives	305	27	.....	555	.....	25	258	.....	22
Laundry and bath employees	11	2	.....	130	17	.....	164	.....	21
School teachers, professors, and lecturers	37	.....	.....	245	.....	5	137	16	.....
Charwomen	2	1	.....	24	2	.....	102	2	.....
Tailoresses	32	20	.....	148	64	.....	66	11	.....
Worsted goods operatives	87	9	.....	117	.....	7	45	.....	7
Woolen goods operatives	32	1	.....	106	.....	14	51	.....	3
Nurses, midwives, etc.	.....	.....	.....	18	14	.....	48	25	.....
Shirtmakers and seamstresses	8	.....	3	45	.....	47	39	.....	40
Shoe, boot, patten, and clog makers (a)	28	11	.....	83	16	.....	33	.....	.....
Drapers and mercers	8	4	.....	91	24	.....	35	11	.....
Grocers and chocolate makers and dealers	6	3	.....	31	11	.....	38	14	.....
Boarding and lodging house keepers	.....	.....	.....	4	.....	.....	38	9	.....
Hotel servants	5	.....	.....	93	24	.....	35	13	.....
Silk, satin, velvet, and ribbon factory operatives	23	.....	3	46	.....	19	23	.....	12
Farm laborers and servants	8	.....	7	30	.....	31	18	.....	13
Total	1,365	69	.....	5,242	.....	75	2,363	.....	.....
Employing under 1 per cent of females who work	261	51	.....	1,094	197	.....	597	60	.....
Total	1,626	120	.....	6,336	122	.....	2,960	60	.....
Total female population	1,612,709	214,608	.....	2,884,756	389,921	.....	4,006,447	511,665	.....

a Dealers, who were included in the census returns for 1881, were not included in those for 1891.

WORKING FEMALES IN 1891 AT CERTAIN AGE PERIODS PER 10,000 FEMALES AT SUCH PERIODS—Concluded.

Occupation.	45 and under 65 years.			65 years and over.			All ages over 10 years.		
	Number.	Compared with 1881.		Number.	Compared with 1881.		Number.	Compared with 1881.	
		Increase.	Decrease.		Increase.	Decrease.		Increase.	Decrease.
Employing more than 1 per cent of females who work:									
Domestic servants	479	26	.....	276	19	.....	1,209	.....	22
Milliners, dressmakers, and staymakers	218	.....	47	94	.....	16	363	5	.....
Cotton goods operatives	87	.....	14	13	.....	5	290	.....	13
Laundry and bath employees	297	.....	44	200	.....	43	162	.....	15
School teachers, professors, and lecturers	53	.....	5	16	.....	13	126	3	.....
Charwomen	213	.....	2	129	.....	23	92	.....	.....
Tailoresses	58	8	.....	30	4	.....	78	25	.....
Worsted goods operatives	16	.....	4	3	.....	.....	61	.....	3
Woolen goods operatives	21	.....	4	5	.....	4	54	.....	5
Nurses, midwives, etc.	102	.....	4	93	.....	31	47	9	.....
Shirtmakers and seamstresses	73	.....	37	93	.....	31	46	.....	a 36
Shoe, boot, patten, and clog makers (b)	17	.....	5	9	.....	3	40	4	.....
Drapers and mercers	19	6	.....	9	2	.....	40	11	.....
Grocers and chocolate makers and dealers	73	23	.....	63	14	.....	40	14	.....
Boarding and lodging house keepers	102	16	.....	81	5	.....	39	6	.....
Hotel servants	10	6	.....	2	1	.....	39	13	.....
Silk, satin, velvet, and ribbon factory operatives	21	.....	16	13	.....	12	28	.....	a 13
Farm laborers and servants	26	.....	21	19	.....	25	21	.....	a 19
Total	1,885	.....	118	1,148	.....	161	2,775	.....	36
Employing under 1 per cent of females who work	612	7	.....	450	.....	69	667	73	.....
Total	2,497	.....	111	1,598	.....	230	3,442	37	.....
Total female population	2,191,964	240,251	.....	766,014	112,932	.....	11,461,890	1,469,377	.....

a An actual decrease as well as a relative one.
b Dealers, who were included in the census returns for 1881, were not included in those for 1891.

The decrease in the numbers employed in occupations connected with the textile industries is shown at every age period above 15 years.

The increase in the number of laundry and bath employees 15 and under 25 years of age is explained by the statement that laundry work in steam laundries attracts girls and young women more than was the case under the hand system.

The numbers employed as teachers, professors, and lecturers, and as nurses, midwives, etc., show an increase at the most efficient age periods, which, it is said, indicates an advance in the quality of their work.

A large decrease is shown, at every age period, in the number of shirtmakers and seamstresses. The report says that the decrease in these occupations would have been still more marked in the number *employed who* were 15 and under 25 years of age were it not for the

growth of the factory system in the manufacture of shirts and underclothing; and to the factory system, and the consequent growth of the ready-made clothing trade, must be traced the great increase in the number of tailoresses.

The foregoing table shows that in 9 of the 18 specified occupations in each of which over 1 per cent of the working females were employed in 1891 or 1881 the employment of females increased relatively to population; these 9 occupations in 1891 employed 812 in every 10,000 females 10 years of age and over, or 90 more than in 1881. The other 9 specified occupations in 1891 employed 1,963 females in every 10,000 of 10 years of age and over, or 126 less than in 1881.

In the remaining occupations, in each of which less than 1 per cent of the working females were employed, 667 females per 10,000 of 10 years of age and over were employed in 1891, or 73 more than in 1881.

A striking fact shown by this table is the decrease in the proportion of females between the ages of 15 and 25 employed in domestic service, and the increase in the number so employed above the age of 25. The decrease is said to be due to a probably diminished supply of young servants; and the consequent improved condition of older servants accounts for the increase in their number. It is also said that as the proportion of children under 10 years of age and the proportion of married to single persons in 1891 were less than in 1881, the need for servants had to some extent diminished.

In order to compare the rate of progress in the employment of females with that of males in certain occupations employing both sexes the following table is given, showing the numbers of working males in 1891, at certain age periods, per 10,000 males at such periods, in the selected occupations, and the increase or decrease in the number employed in each occupation since 1881.

WORKING MALES IN 1891 AT CERTAIN AGE PERIODS PER 10,000 MALES AT SUCH PERIODS, IN OCCUPATIONS LARGELY FOLLOWED BY WOMEN.

Occupation.	10 and under 15 years.			15 and under 25 years.			25 and under 45 years.		
	Number.	Compared with 1881.		Number.	Compared with 1881.		Number.	Compared with 1881.	
		Increase.	Decrease.		Increase.	Decrease.		Increase.	Decrease.
Cotton goods operatives	225	22	.....	277	.....	.....	195	8	.....
Worsted goods operatives	66	10	.....	45	.....	2	31	.....	.....
Woolen goods operatives	35	2	.....	75	2	.....	59	.....	3
Silk, satin, velvet, and ribbon factory operatives	12	1	.....	15	.....	2	13	.....	3
Tailors	20	7	.....	120	18	.....	128	.....	1
Shoe, boot, patten, and clog makers	58	21	.....	201	21	.....	199	.....	23
Drapers	11	1	.....	94	1	.....	64	.....	3
Hotel servants	7	.....	.....	81	7	.....	51	8	.....
School teachers, professors, and lecturers	10	.....	3	62	.....	25	66	13	.....
Farm laborers and servants, teamsters, etc.	402	.....	76	860	.....	200	589	.....	127

WORKING MALES IN 1891 AT CERTAIN AGE PERIODS PER 10,000 MALES AT SUCH PERIODS, IN OCCUPATIONS LARGELY FOLLOWED BY WOMEN—Concluded.

Occupation.	45 and under 65 years.			65 years and over.		
	Number.	Compared with 1881.		Number.	Compared with 1881.	
		Increase.	Decrease.		Increase.	Decrease.
Cotton goods operatives	135	.....	14	51	.....	26
Worsted goods operatives	26	.....	4	14	.....	6
Woolen goods operatives	59	.....	9	38	.....	21
Silk, satin, velvet, and ribbon factory operatives	20	.....	12	24	.....	20
Tailors	141	.....	35	143	.....	21
Shoe, boot, patten, and clog makers	256	.....	43	245	.....	47
Drapers	45	4	.....	19	.....	.....
Hotel servants	20	3	.....	7	.....	.....
School teachers, professors, and lecturers	37	5	.....	12	.....	4
Farm laborers and servants, teamsters, etc	809	.....	250	990	.....	320

In four occupations employing females and males the former have made distinct advances; in one of these, hotel servants, the number of males also show an advance; in another, drapers, the number of male employees 25 and under 45 years of age show a decrease; in the other two, tailors and shoemakers, boys and youths show an increase. The decrease in the last two occupations in the numbers employed at the age periods above the 15–25 period is said to be probably due to changes in the organization of the trades to which these occupations belong, and the decrease in the number of males 25 and under 45 years of age in the shoe trade is partly due to the exclusion of dealers in the census returns for 1891, who were included in those for 1881. A decrease in the numbers of both sexes employed as farm laborers and servants, teamsters, etc., is shown at every age period.

There was a remarkable increase in the employment of children of both sexes under the age of 15 years. It is suggested that the increase shown by the census of 1891 over the number as reported by the census of 1881 may be partly due to concealment of employment of children in 1881. As to the employment of female children, the increase seems to be attributable to the growth of urban population, such increase having occurred in counties containing one or more towns of over 50,000 inhabitants in which the population has increased at a higher rate than the urban population generally. This inference is supported by the fact that the increase in the employment of girls under 15 years of age was greatest in industries in which the chances of employment are much greater in towns than in rural districts, in several branches of which the extended use of machinery and the minute subdivision of labor render it easier for children to find work than formerly.

In the table giving the employment of females at certain age periods it is shown that in every 10,000 females 10 and under 15 years of age 1,626 were employed, equivalent to 16.26 per cent. The census returns for 1891 show that in 34 towns, including London, with over 50,000 inhabitants each, the percentage was lower than this, ranging in the

different towns from 6.2 to 16 per cent, while in 28 towns of over 50,000 population the percentage was higher, ranging from 17 to 58.1 per cent.

The age period at which the largest percentage of females is employed is that from 15 to 20 years. The census of 1891 shows that in England and Wales 68.6 per cent of females between these ages were employed in the various occupations. In 30 towns each with a population of upward of 50,000 the percentage was lower than this, ranging from 49.2 to 67.1 per cent, while in 32 towns each having populations of over 50,000 the percentage was higher, ranging from 68.8 to 95.3 per cent.

In discussing the employment of women over 20 years of age, with special reference to married and widowed women, the report says that the age period between 20 and 25 years is that at which the female worker has, perhaps, the most industrial freedom; she is then not only in her prime industrially, but generally has the option of exchanging wage-earning employment for domestic life. In England and Wales 70 per cent of the females at this age period were returned as unmarried; but the large towns showed considerable divergence from this average, the percentages ranging from 41 to 85.

Tables are given showing the percentages of working married and widowed females at different age periods in 19 industrial towns in England in 1891 and 1881, and the inference is drawn that in these towns, most affected by female labor, to which the tables relate, the percentage of working married women is diminishing. It is mentioned as a noteworthy fact that in all these factory centers there is a marked diminution in the proportion of working married women between the ages of 20 and 25 years.

The conditions governing married female labor in the north of England are quite different from those in the south. In the north there has been a large demand for female labor, and married women have been attracted by the high wages obtainable in the textile industries, especially in the cotton trade. The women of the north have not regarded industrial employment as being merely a means of support prior to marriage, but have looked upon it, more than upon domestic management, as their life occupation, and they work with a view to saving or for greater comfort in living. These causes tend to make them efficient workers and to develop industrial ambition.

In the south of England, where the factory industries are small and a large proportion of female employment is in domestic service, working girls look forward to marriage as a release from wage-earning employment, and in the upper industrial classes marriage usually gives such release. The girl before marriage rarely aims at becoming a very efficient worker, and if in later life she finds it necessary to again support herself she is unable to gain employment except in ordinary domestic service. In the lower industrial grades females frequently remain at work after marriage because of the small earnings or irreg-

ular employment of their husbands. The effect of these conditions on the quality of female labor is disadvantageous, and the married female labor is of a poor kind.

Part II of the report deals with statistics collected by the labor department from manufacturers in 1894, relative to unmarried, married, and widowed females employed by them in cotton, woolen, and worsted mills in Lancashire, Cheshire, Yorkshire, and the west of England. Returns were received from 1,654 manufacturers, of whom 968 were in the cotton industry, 315 in the woolen, 340 in the worsted, and 31 in the mixed woolen and worsted. These returns relate to the employment of 246,825 females, distributed among the industries as follows: Cotton, 176,456; woolen, 20,045; worsted, 46,540; mixed woolen and worsted, 3,784.

The females employed in the cotton and other industries, to whom the labor department statistics relate, are classified as "half-timers," who were 11 and under 13 years of age; as "young persons," who were 13 and under 18 years of age, and as "women 18 years of age and over." This classification is in accordance with the terms of the English factory act, which defines the terms "half-timer," "young person," and "women" in such a manner as to include all females legally employed in factories under these headings.

In the cotton industry 12,536 of the 176,456 females employed, or 7.1 per cent, were half-timers; 45,398, or 25.7 per cent, were young persons; 118,522, or 67.2 per cent, were women 18 years of age and over. Of the 118,522 women, 38,991, or 32.9 per cent, were either wives or widows; the ratio of married and widowed to the total number of females, exclusive of half-timers, was 23.8 per cent, or nearly one-fourth; of the total number of females, including half-timers, 22.1 per cent, or more than one-fifth, were married or widowed; of the 38,991 women who were married or widowed, 4,841, or 12.4 per cent, were widowed.

Great differences exist in the percentages in different localities; for example, in 10 urban sanitary districts each with over 50,000 inhabitants the percentages of women over the age of 18 who were married or widowed ranged from 9.8 to 44.7 per cent.

In the woolen industry the statistics show that of the 20,045 females to whom they relate, 200, or 1 per cent, were half-timers; 3,364, or 16.8 per cent, were young persons, and 16,481, or 82.2 per cent, were women 18 years of age and over. Of the 16,481 women, 4,906, or 29.8 per cent, were either married or widowed. The ratio of married and widowed to the total number of females, exclusive of half-timers, was 24.7 per cent, or about one-fourth.

The relative number of half-timers reported in this industry was so small that the ratio of wives and widows to the total number of working females was nearly the same as their ratio to the total number exclusive of half-timers, being 24.5 per cent. Of the 4,906 woolen operatives

reported as married or widowed, 844, or 17.2 per cent, were reported as widowed.

In the worsted industry 3,944, or 8.5 per cent, of the 46,540 working females were half-timers; 13,288, or 28.5 per cent, were young persons, and 29,308, or 63 per cent, were women 18 years of age and over. Of the 29,308 women, 6,269, or 21.4 per cent, were either married or widowed. The ratio of married and widowed to the total number of working females, exclusive of half-timers, was 14.7 per cent, or slightly more than one-seventh; the ratio of married and widowed to the total number of working females, inclusive of half-timers, was 13.5 per cent, or nearly one-seventh. Of the 6,269 wives and widows, 1,111, or 17.7 per cent, were widows.

In the mixed woolen and worsted industry 83, or 2.2 per cent, of the 3,784 female operatives were half-timers; 792, or 20.9 per cent, were young persons, and 2,909, or 76.9 per cent, were women 18 years of age and over. Of the 2,909 women, 686, or 23.6 per cent, were either married or widowed. The ratio of the married and widowed to the total number of working females, exclusive of half-timers, was 18.5 per cent, and to the total number, inclusive of half-timers, 18.1 per cent. Of the 686 wives and widows, 108, or 15.7 per cent, were widows.

The total number of females in all the industries to which the statistics relate was 246,825. Of this number 16,763, or 6.8 per cent, were half-timers; 62,842, or 25.5 per cent, were young persons, and 167,220, or 67.7 per cent, were women 18 years of age and over. Of the 167,220 women, 50,852, or 30.4 per cent, were either married or widowed. The ratio of the married and widowed to the total number of working females, exclusive of half-timers, was 22.1 per cent, and to the total number, inclusive of half-timers, 20.6 per cent. Of the 50,852 wives and widows, 6,904, or 13.6 per cent, were widows.

The following statement shows the number of working females, by industries, concerning whom statistics were gathered by the labor department in 1894, classified as "half-timers," those 11 and under 13 years of age; "young persons," those 13 and under 18 years of age, and "women 18 years of age and over," of whom the number unmarried, married, and widowed are given. The percentage that each class is of the total number of working females in each industry is also given.

The following statement presents the average annual wages paid in some of the leading industries treated in the summary table:

AVERAGE ANNUAL WAGES PAID IN VARIOUS INDUSTRIES, 1889 TO 1893.

Industry.	1889.	1890.	1891.	1892.	1893.
Agricultural implements	$427.58	$558.41	$515.87	$543.98	$649.34
Beef and pork packing	531.17	498.89	571.75	496.30	438.17
Clothing	538.17	271.55	519.90	500.03	376.43
Coffee and spice mills	785.60	723.12	500.00	597.56	922.65
Flour and feed	656.72	609.32	709.84	657.64	470.22
Furniture, not including chairs	400.69	370.21	467.67	366.64	338.84
Iron works, malleable	350.75	546.03	409.77	394.73	405.21
Lumber, laths, and shingles	334.84	524.12	532.29	348.25	341.10
Marble, cut stone	456.99	522.38	587.32	479.40	390.10
Paper and pulp	404.10	404.03	368.54	412.96	406.00
Plumbers' and gas-fitters' supplies	.....	.....	.....	485.83	409.05
Printing, publishing, and bookbinding	518.09	441.14	447.09	455.97	476.82
Railway shops	509.14	525.93	569.12	496.51	536.28
Rolling mills	552.71	592.08	475.42	784.25	668.19
Sash, doors, and blinds	373.15	349.88	378.46	309.54	387.22
Textiles	314.14	269.06	253.62	230.18	276.92
Tobacco	453.21	455.77	426.24	324.48	542.60
Wagon stock	.....	.....	.....	418.02	399.06
Wagons, carriages, etc	366.35	463.09	421.44	411.30	354.50
Windmills, tanks, and pumps	467.25	825.56	500.01	539.71	530.57

Comparisons are also made between the total wages and the number of employees in different industries in the city of Milwaukee and those in the state exclusive of the city.

An idea of the magnitude of the different industries in Milwaukee and in the state exclusive of the city may be obtained from the following statement, which shows the total for fifteen selected industries:

EMPLOYEES AND TOTAL WAGES IN FIFTEEN SELECTED INDUSTRIES IN MILWAUKEE AND IN WISCONSIN, 1893.

Industry.	Milwaukee.		State, exclusive of Milwaukee.	
	Employees.	Wages.	Employees.	Wages.
Agricultural implements	363	$212,071	2,259	$1,459,980
Beer and malt	3,678	1,926,289	654	542,001
Boots and shoes	1,680	427,532	1,777	823,662
Cigars	400	136,651	505	221,199
Clothing	1,065	547,527	1,028	239,661
Cut stone, marble	173	81,060	309	87,766
Flour and feed	457	257,616	1,572	560,567
Furniture, chairs	694	229,502	3,772	1,485,163
Iron works, foundries, and machine shops	2,976	1,641,811	2,054	883,370
Nails, tacks	489	154,100	179	64,862
Railway repair shops	208	115,640	5,737	3,129,262
Sash, doors, and blinds	1,305	541,910	2,481	1,311,354
Tobacco	313	125,843	.....	.....
Wagons, carriages, and sleighs	430	147,941	2,758	900,694
Woolens and worsteds	1,020	205,212	1,458	530,201

The percentages of employees at stated daily rates of wages in factories, in 1893, are shown for the state, and on examining the total representing 102,865 employees, it is found that 48.55 per cent received $1.25 and under $2 per day, while but 1.47 per cent received $3.50 and under $4 per day. The results are summarized so as to permit of a ready comparison of the relative number at each rate in the different industries.

The following statement shows the number and per cent of females working full time, above referred to, in the industries specified, at and between different weekly wage rates:

FEMALES WORKING FULL TIME IN CERTAIN INDUSTRIES AT AND BETWEEN CERTAIN WEEKLY WAGE RATES, 1886.

Industry.	Under $2.43.		$2.43 and under $3.65.		$3.65 and under $4.87.		$4.87 and under $6.08.		$6.08 and over.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Cotton (*a*)	7,245	10.7	30,482	44.9	21,708	32.0	8,216	12.1	192	0.3	67,843	100
Woolen (*b*)	1,159	10.6	6,973	64.0	2,767	25.3	10	.1	.....	.....	10,909	100
Woolen (*c*)	796	45.3	961	54.7	.....	.....	.....	.....	.....	.....	1,757	100
Total	1,955	15.4	7,934	62.6	2,767	21.9	10	.1	.....	.....	12,666	100
Worsted and stuff (*d*)	6,902	36.6	11,838	62.8	115	.6	.....	.....	.....	.....	18,855	100
Grand total	16,102	16.2	50,254	50.6	24,590	24.7	8,226	8.3	192	.2	99,364	100

a In Lancashire and Cheshire.
b In Yorkshire and Lancashire.
c In west of England.
d In Yorkshire.

The board of trade statistics for 1886 are considered in connection with those collected by the labor department in 1894. From the latter it appears that in 1894 the proportion of young persons to women was considerably higher in worsted than in cotton mills, 31.2 per cent of the full-timers being young persons in the former case and 27.7 per cent in the latter. Moreover, only 21.4 per cent of the adult females in the worsted mills were married or widowed, as compared with 32.9 per cent in the cotton mills. Supposing somewhat similar conditions to have prevailed in 1886 as in 1894, it would follow that the average age of the cotton operatives was higher than that of the worsted operatives. Making all allowance for such difference in age, it would seem that the average wages were lower in the worsted than in the cotton industry.

The change that has taken place in the woolen manufacture since 1886 makes it most unlikely that the proportion of young persons to adult women employed in 1894 approximated to that prevailing in 1886. The proportion of adult females in woolen mills was abnormally high in 1894, having been 83 per cent of full-timers, as compared with 72.3 per cent in the cotton mills. This high proportion of adult females was most probably due to the employment of girls in worsted instead of in woolen mills. Notwithstanding the high proportion of adult females, the percentage of females either married or widowed in the Yorkshire woolen mills was less than the percentage in the cotton mills, having been 28.1 per cent in the former case and 32.9 per cent in the latter. In 1886, before the stream of young workers was diverted from the woolen to the worsted cloth manufacture, the percentage of married females was probably lower still.

Comparing the three industries, it was found that the higher average of wages coincide with a higher percentage of adult females either married or widowed. Comparing estimated average wages of young persons in the cotton and worsted mills, the average in the worsted mills was considerably lower than in the cotton mills, although the average age of young persons would be about the same.

An examination of the relation between average wages and the percentage of married women employed in cotton mills in different districts pointed to the conclusion that in the north of England one of the causes of an exceptionally high rate of employment of married women was the high rate of wages that could be earned. In so far as this conclusion is correct, it may be inferred that a falling in wages of working females in the great textile trades would be followed by a diminution in the employment of married women, if the wages of male operatives remained unchanged.

With the relation between wages and the employment of married women in the north of England must be compared the conditions found in the woolen mills in the west of England, where the average weekly wage in 1886 was much lower than the average in Yorkshire and Lancashire, but where the percentage of working females who were either married or widowed was extremely high in 1894.

In conclusion, it is said that the current view that the employment of female labor is rapidly extending, and that women are replacing men to a considerable extent in industrial occupations, is not confirmed. On the whole, the proportion of working females remained practically stationary in the decade 1881–1891, there having been 34.05 working females over 10 years of age per 100 in 1881 and 34.42 per 100 in 1891, the slight increase being attributed to the increased number of females under 25 years of age with definite occupations, and to the increased employment of middle-class women.

The employment of married and elderly women has, on the whole, diminished, as has also the employment of women in casual occupations. There has been an increase in the employment of females under the age of 25 years, which has, however, been concurrent with a similar extension in the employment of young men and boys.

As to the substitution of female for male labor, the census returns show that 83.24 per cent of males over 10 years of age were industrially employed in 1881 and 83.10 per cent in 1891. In either year there were less than 17 males in every 100 who could possibly have been added to the ranks of the employed, whereas there were nearly 66 females in every 100 upon which to draw for an increase in wage earners, yet in 1891 this available female surplus had only been diminished by less than 1, and it appears to be clearly shown that male labor has not been displaced to any marked extent by the employment of females.

EMPLOYER AND EMPLOYEE UNDER THE COMMON LAW.

BY VICTOR H. OLMSTED AND STEPHEN D. FESSENDEN.

The relations existing between employers of labor and their employees, and the reciprocal duties, obligations, and rights growing out of those relations, are, in the absence of legislative enactments, governed by the common law in regard to master and servant, the words master and servant being legally synonymous with the words employer and employee.

The common law consists of principles, usages, and rules of action, applicable to the government and security of persons and property, which have grown into use by gradual adoption, without legislative authority, and have received, from time to time, the sanction of the courts of justice.

The great body of the common law of the United States consists of the common law of England, and such statutes thereof as were in force prior to the separation of this country from England, and applicable to circumstances and conditions prevailing here. These laws have been adopted as the basis of our jurisprudence in all the states except Louisiana, and many of the most valued principles of the English common law have been embodied in the constitutions of the United States and the several states.

In many details, however, the common law of the United States now differs widely from that of England by reason of modifications arising from different conditions and established by American adjudications. That branch of the common law governing the relation of master and servant has undergone some changes, although in the main it is the same in this country as in England. It is not the purpose of this article to point out such changes or differences, but to state the principles and rules of the common law now prevailing throughout the United States, except where they have been changed or modified by legislative enactments.

The statement which follows is derived from articles in the American and English Encyclopedia of Law on the subject of "Master and servant" and kindred topics, and from standard legal works treating of the subject under consideration. The reader should bear in mind that any rule or principle of the common law, as given in this statement, conflicting with a statute which has not been declared invalid or unconstitutional by the courts, is modified or changed by the statute, and that the statute *instead of the* common law now governs.

MASTER AND SERVANT: DEFINITIONS.—A master is variously defined as one who has in his employment one or more persons hired by contract to serve him either as domestic or common laborers; one who has the superior choice, control, and direction, whose will is represented not merely in the ultimate result of the work in hand, but in all its details; one who is the responsible head of a given industry; one who not only prescribes the end, but directs, or may at any time direct the means and methods of doing the work; one who has the power to discharge; a head or chief; an employer; a director; a governor.

A servant is one who is employed to render personal service to his employer otherwise than in the pursuit of an independent calling, and who, in such service, remains entirely under the control and direction of the latter.

THE RELATION: ITS CREATION AND EXISTENCE.—The relation of master and servant is created by contract, either express or implied, where both parties have the requisite legal qualifications for entering into a valid contract. The relation exists only where the person sought to be charged as master employs and controls the other party to the contract of service, or expressly or tacitly assents to the rendition of the particular service by him. The master must have the right to direct the action of the servant, and to accept or reject his service. The relation does not cease so long as the master retains his control or right of control over the methods and manner of doing the work, or the agencies by which it is effected. Furthermore, the relation exists where the servant is employed, not by the master directly, but by an employee in charge of a part of the master's business with authority to engage assistance therein.

THE CONTRACT OF SERVICE.—A contract of employment is one by which an employer engages an employee to do something for the benefit of the employer, or of a third person, for a sufficient consideration, expressed or implied. The authority of a subordinate to employ an agent or servant includes, in the absence of restrictive words, authority to make a complete contract, definite as to the amount of wages, as well as to all other terms.

Ordinarily, when an adult person solicits employment in a particular line of work, the solicitation carries with it an implied assertion that the one seeking employment is competent to perform the ordinary duties of the position sought; and it is an implied condition of every contract of service that the employee is competent to discharge the duties of his employment.

A servant is presumed to have been hired for such length of time as the parties adopt for the estimation of wages; for example, a hiring at a yearly rate is presumed to be for one year; at a daily rate, for one day; a hiring by piecework, for no specified time; but such fact does not, in the absence of other evidence, necessarily fix the period of hiring. Where an employee has been hired to work by the week or month, the

burden of proof is upon him to show any change in the contract of employment as to the term of service.

It is a general rule that where a person enters into a contract of service for a fixed compensation, he, prima facie, agrees to give his employer his entire time; but this rule is not inflexible.

A contract for service running for a longer period of time than one year, to be valid, must be in writing and signed by the party against whom it may be sought to be enforced, or by his authorized agent.

In the absence of an express contract of hiring, a person may recover compensation for services where the same were rendered under such circumstances as to show that he expected such compensation as a matter of right, and that the person for whom they were rendered was bound to know that he claimed compensation, or was legally entitled thereto. Where one person performs labor for another, a request and a promise to pay the reasonable worth of such labor are presumed by law, unless it is understood that the labor is to be gratuitously performed, or it is performed under such circumstances as to repel the presumption of a promise to pay.

Where there is an express contract the servant must be furnished with employment by the master during the period covered by its terms. If by the terms of the contract the servant is employed to work by the day, week, month, or year, and nothing is said as to the time of payment for his services, the wages are due and may be demanded at the close of each day, week, month, or year, as the case may be; but in such case, as upon all questions relating to the interpretation of contracts, custom has a strong bearing.

A man can contract to furnish his own services and those of his wife, and if she makes no separate claim can sue for them; and if such contract needs ratifying, the testimony of the wife in support of his demand will be a sufficient ratification.

A wife is not responsible for the wages of her husband's employee, notwithstanding the fact that she sometimes pays such wages.

When a master agrees to pay his servant what he considers the servant's services to be reasonably worth, or, where he agrees to pay the same wages as shall be paid to other men in his employ filling similar positions, and there is no showing that the master has other employees in similar positions, the servant is entitled to recover, in a suit for wages, what his services were actually worth. And where the master and servant agree as to the existence of the contract of service, but disagree as to the wages to be paid, the question of compensation must be left to a jury.

Unless otherwise agreed, the wages of an employee must be paid in cash. The master has no right to handle, or invest, or in any manner apply such wages, whether beneficial to the servant or not, but must pay them directly to him.

An employer may discharge an employee before the expiration of the term of service stipulated in the contract for good and sufficient cause, as, for incompetency. The discharge must be couched in such terms as to leave no doubt in the employee's mind of the employer's desire to terminate the relation.

In a majority of the states a contract for service for a specified time is considered apportionable, and an employee who has been discharged for cause is entitled to compensation for the work he has actually performed.

Where one has contracted to employ another for a certain period of time, at a specified price for the entire time, and discharges him wrongfully before the expiration thereof, the wrongfully discharged employee is entitled to recover an amount equal to the stipulated wages for the whole period covered by the contract, less the sum earned, or which might have been earned in other employment during the period covered by the breach. Upon dismissal a servant, under the law, must seek other employment, but extraordinary diligence in such seeking is not required of him. He is only required to use reasonable efforts, and he is not bound to seek employment or render service of a different kind or grade from that which he was engaged to perform under the violated contract, nor to seek employment in a different neighborhood; and if he fails to secure employment and works on his own account the value of such work can not be deducted from his claim.

Where an employee for a fixed period, at a salary for the period, payable at intervals, is wrongfully discharged, he may pursue one of four courses—

1. He may sue at once for the breach of contract, in which case he can only recover his damages up to the time of bringing the suit.

2. He may wait until the end of the contract period, and then sue for the breach.

3. He may treat the contract as existing, and sue at each period of payment for the wages then due.

4. He may treat the contract as rescinded, and sue immediately for the value of his services performed, in which case he can only recover for the time he actually served.

An employee is entitled to recover damages from a person who maliciously procures his discharge, provided he proves that the discharge resulted in damage to him.

An employer is entitled to maintain an action against anyone who knowingly entices away his servant, or wrongfully prevents the servant from performing his duty, or permits the servant to stay with him and harbors such servant with the intention of depriving the master of his services.

COMBINATIONS AND COERCION OF SERVANTS.—Everyone has the right to work or to refuse to work for whom and on what terms he pleases, or to refuse to deal with whom he pleases; and a number of

persons, if they have no unlawful object in view, have the right to agree that they will not work for or deal with certain persons, or that they will not work under a fixed price or without certain conditions.

The right of employees to refuse to work, either singly or in combination, except upon terms and conditions satisfactory to themselves, is balanced by the right of employers to refuse to engage the services of anyone for any reason they deem proper. The master may fix the wages, and other conditions not unlawful, upon which he will employ workmen, and has the right to refuse to employ them upon any other terms. In short, both employers and employees are entitled to exercise the fullest liberty in entering into contracts of service, and neither party can hold the other responsible for refusing to enter into such contracts.

It has been held, however, that employers in separate, independent establishments have no right to combine for the purpose of preventing workmen, who have incurred the hostility of one of them, from securing employment upon any terms, and by the method commonly known as blacklisting debarring such workmen from exercising their vocation, such a combination being regarded as a criminal conspiracy.

On the other hand, a combination of employees having for its purpose the accomplishment of an illegal object is unlawful; for instance, a conspiracy to extort money from an employer by inducing his workmen to leave him and deterring others from entering his service, is illegal; and an association which undertakes to coerce workmen to become members thereof or to dictate to employers as to the methods or terms upon which their business shall be conducted, by means of force, threats, or intimidation interfering with their traffic or lawful employment of other persons is, as to such purposes, an illegal combination.

Unlawful interference by employees, or former employees, or persons acting in sympathy with them, with the business of a railroad company in the hands of a receiver, renders the persons interfering liable to punishment for contempt of court.

Employer's Liability for Injuries of Employees.—Where a person employs an independent contractor to do work for him, and retains or exercises no control over the means or methods by which the work is to be accomplished, he is not answerable for the wrongful acts of such contractor; and the same rule governs as between a contractor and a subcontractor. Under these circumstances an employer would not be liable for an injury sustained by a workman in the course of his employment for which he would have been liable had the work been performed under his own direction.

An employer is ordinarily liable in damages to his employee who sustains an injury through the employer's negligence. Such negligence may consist in the doing of something by the employer which, in the exercise of ordinary care and prudence, he ought not to have done, or in the omission of any duty or precaution which a prudent, careful man would or ought to have taken.

An important duty on the part of a master is to furnish his servant with such appliances, tools, and machinery as are suited to his employment and may be used with safety; and if a master fails to use ordinary care in the selection or care of such appliances his ignorance of a defect therein will not excuse him from liability for an injury caused thereby; he is responsible for all defects in machinery or appliances of which he should have known, but failed through negligence to learn of, or which, having learned of, he has failed to remedy.

A railroad company is liable for injuries to its employees occasioned by the company's negligence in failing to keep its track or roadbed in proper condition; but such company is not bound to furnish an absolutely safe track or roadbed, its duty only being to use all reasonable care in keeping them in safe condition.

A railroad company is likewise liable if it fails to keep its track clear of obstructions and structures dangerously near the same; but such company is not negligent because it erects and maintains structures and contrivances for use in the operation of its road merely for the reason that they may be dangerous to employees operating the company's trains.

It is negligence for such a company to fail to use safe and appropriate engines; or to have the boilers of its engines properly tested; or to furnish suitable freight or passenger cars, and proper and safe attachments and appliances to be used in connection therewith; and such company can not divest itself of its duty to use due care and diligence with respect to the cars of other companies to be moved and handled by its employees, in seeing that such cars are in safe condition to be so moved and handled, by contracts with such other companies that they shall keep their cars in repair.

It is negligence in such a company to permit its employees to disobey its orders, and it is liable for injuries arising from the careless or reckless running of its trains, or the starting thereof without notice, or the running of its trains at immoderate speed.

Railroad companies, and employers of every description, are negligent if they fail to protect a servant who is exposed to danger; but such a company is not absolutely bound to take all possible precautions against storms, or against washouts, landslides, or other obstructions which may be dangerous to its employees. And if the mill of a manufacturing corporation is properly constructed for the carrying on of its ordinary business, the corporation is not liable to an employee who has been injured by a fire, not caused by the negligence of the corporation, because it failed to provide means of escape from the fire; nor is such corporation liable for an accident resulting in injury to an employee from its failure to fence the ordinary machinery used in the servant's employment; if, however, there is a custom in reference to the adoption of certain safeguards in a given business, so general that the employer is presumed to have knowledge of it, he is guilty of negligence if he fails to adopt such safeguards.

A master is not chargeable with negligence when an employee is injured through the use of a machine for an improper or dangerous purpose, for which it was not intended or provided, but is guilty of negligence when he exposes an employee to dangers not obvious or fairly incident to the employment, or where he introduces new and unusual machinery, involving unexpected danger, without notice to his employee.

Employers are not, as a rule, required to furnish the best and latest improved machinery, but only such as is reasonably safe and suitable. Railroad companies, however, are ordinarily bound to adopt new inventions as soon as they have been proved by satisfactory tests to be safer than the appliances in use.

While it is the duty of an employer to exercise reasonable care in keeping buildings, machinery, tools, etc., in suitable and safe condition for use, and to this end he should frequently inspect the machinery, etc., used by his employees, the system of inspection need not be carried to such an extent as will embarrass the operation of his business.

A master who sets a servant at work in a place of danger without giving him such warning and instruction as the youthfulness, inexperience, or lack of capacity on the part of the servant reasonably requires, is guilty of negligence, and liable to the servant for an injury arising therefrom. The fact, however, that a master sets a minor servant to work at a more dangerous occupation than that in which he was originally employed does not, in itself, render the master liable for an injury resulting therefrom, unless under all the circumstances the setting him at such work was a negligent act; but the master will be held more strictly accountable in such a case than in the case of an adult.

Proprietors of manufacturing establishments are charged with the duty of exercising ordinary care in providing their employees with suitable places in which they can work in reasonable safety, and without exposure to dangers not within the usual scope of their employment.

It is the duty of employers to make and promulgate such rules and regulations for the government of their employees as will, if observed, give them reasonable protection; and employees are bound to obey all the lawful and reasonable commands of their employers, though such commands may seem harsh and severe.

It is also the duty of employers to have a sufficient number of trustworthy, competent employees to properly and safely perform the labor required in the business in which they are engaged.

When certain duties are imposed upon an employer by legislative enactment or municipal ordinance, designed for the protection of his employees, it is negligence on his part to fail to comply with such requirements, and he is liable to his employees for injuries arising from such negligence, unless it can be clearly shown that they assumed the risk.

An employer can not avoid his liability to an employee for injuries sustained by the latter through his negligence by means of a contract with such employee which provides that in consideration of the employment he shall be exempt from such liability. Such a contract is against public policy and void. The supreme court of the state of Georgia has, however, sustained the validity of contracts of this character.

CONTRIBUTORY NEGLIGENCE BY EMPLOYEES.—It is a general rule that when an employee suffers an injury through the negligence of his employer he is not entitled to recover damages for such injury if his own negligence contributed thereto. Under this rule, where master and servant have equal knowledge of the danger of the service and the means of avoiding it, and the servant while engaged in the performance of his duties is injured by reason of his own inattention and negligence, the master is not liable; and where the servant is told to do a particular thing and is not directed as to the time or manner in which the work is to be done, it being left to his discretion, so that he is given some control over the means, time, and manner of doing it, he is guilty of contributory negligence if he does not use the safest means, time, and method of accomplishing the work and is injured while so engaged, and can not recover damages from the master; nor can he recover such damages if injured by the use of a defective appliance under his own exclusive care; nor where he had knowledge of a defect in an appliance used by him, through which he is injured, and failed to notify the master thereof, if no blame was imputable to the latter in failing to discover such defect, or in failing to furnish a safe and suitable appliance.

But an employee's right to recover damages for an injury is not affected by his having contributed thereto unless he was at fault in so contributing, and he may recover, notwithstanding his contributory negligence, if the master, after becoming aware of the danger, failed to exercise ordinary care to prevent the injury or willfully inflicted the damage.

When an employee in the course of his employment finds himself exposed to imminent peril due to the master's negligence, and in the terror of the moment adopts a course exposing him to greater peril and is injured, such action on his part does not constitute contributory negligence, and will not relieve the master from liability.

An employee is not guilty of contributory negligence if, when injured, he was exercising ordinary care to avoid injury, and discharging his duties in a careful and prudent manner, and the injury was sustained by reason of negligent failure on the part of the employer to exercise ordinary care for the employee's safety, as failure to warn the employee of extraneous risks and unusual dangers known to the employer but unknown to the employee, or to instruct an immature or inexperienced servant and warn him of the dangers attending his work not obvious to one of his capacity or experience; to provide suitable machinery,

tools, and appliances for carrying on the work at which the servant is employed; to inspect and repair machinery, tools, and appliances; to provide a safe place for the servant to work, the ordinary risks of the business excepted; to guard against a danger to a servant of which the master has been notified, or which he has promised to obviate, or which he has assured the servant did not exist; to make and promulgate proper rules and regulations for the conduct of the employment in which the servant is engaged; to employ and retain a sufficient number of competent and trustworthy servants to properly and safely carry on the business. The employee does not assume the risk of injury by reason of the negligent failure of his employer in fulfilling any of the duties incumbent upon him, and, as before stated, is not guilty of contributory negligence when injured by such failure, if he himself was without fault in the discharge of his duty.

Contributory negligence is purely a matter of defense in actions by employees for damages resulting from injuries sustained during the course of their employment, and the burden of proving it is upon the master who seeks thereby to avoid liability for such damages.

Assumption of Risks by Employees.—Where an employment is accompanied with risks of which those who enter it have, or are presumed to have, notice, they can not, if they are injured by exposure to such risks, recover compensation for the injuries from their employer; by contracting to perform hazardous duties the employee assumes such risks as are incident to their discharge, and he assumes not only the risks existing at the beginning of his employment, but also such as arise during its course, if he had or was bound to have knowledge thereof. He does not, however, assume the risk of dangers arising from unsafe or defective methods, machinery, or other instrumentalities, unless he has, or may be presumed to have, knowledge or notice thereof, and the burden of proving that an injured employee had such knowledge or notice of the defect or obstruction causing the injury is upon the employer.

The employee assumes all risk of latent defects in appliances or machinery, unless the master was negligent in not discovering the same; but the experience, or lack of experience, of the employee is to be considered in determining whether or not he is chargeable with knowledge of such defects as are not obvious and of the danger arising therefrom.

Another risk assumed by employees is that of the master's method of conducting his business. If the employee enters upon the service with knowledge of the risk attending the method, he can not hold the master responsible for injuries arising from the use of such method though a safer one might have been adopted; but in order to relieve the master from liability the method must amount to a custom or mode of carrying on the business, and not consist merely of an instance or any number of instances of culpable negligence on the part of the master.

NEGLIGENCE OF FELLOW-SERVANTS.—The general rule at common law is that he who engages in the employment of another for the performance of specified duties and services, for compensation, takes upon himself the natural and ordinary risks and perils incident to the performance of such services. The perils arising from the carelessness and negligence of those who are in the same employment are no exception to this rule, and where a master uses due diligence in the selection of competent, trusty servants and furnishes them with suitable means to perform the services in which he employs them, he is not answerable to one of them for an injury received in consequence of the carelessness or negligence of another, while both are engaged in the same service.

Various attempts have been made by judges and text writers to lay down some rule or formula by which to determine what servants of a common master may be said to be fellow-servants assuming the risk of each other's negligence. The following are well-known definitions:

Persons are fellow-servants where they are engaged in the same common pursuit under the same general control.

All who serve the same master, work under the same control, derive authority and compensation from the same common source, and are engaged in the same general business, though it may be in different grades or departments of it, are fellow-servants who take the risk of each other's negligence.

The true test of fellow-service is community in that which is the test of service; which is subjection to control and direction by the same common master in the same common pursuit. If servants are employed and paid by the same master, and their duties are such as to bring them into such a relation that the negligence of the one in doing his work may injure the other in the performance of his, then they are engaged in the same common pursuit, and being subject to the same control they are fellow-servants.

All servants in the employ of the same master, subject to the same general control, paid from a common fund, and engaged in promoting or accomplishing the same common object, are to be held fellow-servants in a common employment.

It is said that these definitions are faulty, and of little practical value by reason of their being stated so broadly and in such general and comprehensive terms, nevertheless they give a correct idea as to who have been determined by many courts to be fellow-servants within the rule exempting the master from liability for the negligence of one of them resulting injuriously to another.

The principal limitation contended for on the general rule in regard to fellow-servants is that there is such a servant as vice-principal, who takes the place of the master and is not a fellow-servant with those beneath him; and there is a variation of this idea to the effect that every superior servant is a vice-principal as to those beneath him. The doctrine of vice-principal is, however, repudiated by the courts of many of the states.

The master, as such, is required to perform certain duties which have been hereinbefore specified, and the person who discharges any of these duties, no matter what his rank or grade, no matter by what name he may be designated, can not be a servant within the meaning of the general rule on fellow-servants. The liability of the master for the nonperformance of such duties as the law implies from the contract of service, does not rest upon the ground of guarantee of their performance, but upon the fact of the presence or absence of negligence of the master in their performance.

Whether one is acting as the representative of the master or merely as the fellow-servant with others employed by the same master, does not depend upon his rank or title, but upon the character of the duties he is performing at the time another servant is injured through his negligence; if at such time the offending servant was in the performance of a duty which the master owed his servants, he was not a fellow-servant with the one injured, but a vice-principal, for the rule is fundamental that a master can not rid himself of a duty he owes to his servants by delegating his authority to another and thus escape responsibility for negligence in the performance of such duty.

If, however, at the time of the injury the negligent servant was not engaged in the performance of duty due from the master to his servants, but was discharging a duty which was due from the servant to the master, he was a fellow-servant to the one injured, engaged in the same common business, and the master would not be liable for the injuries sustained by reason of his negligence.

It is held by the courts of some of the states that, as industrial enterprises have grown, and, because of the division of labor and the magnitude of operations, have been divided into distinct and separate departments, a laborer in one department is not a fellow-servant with a laborer in another and separate department of the same establishment.

INCOMPETENCY OF FELLOW-SERVANTS.—If an employer knowingly employs or retains an incompetent servant he is liable for an injury to a fellow-servant sustained through the incompetency of the servant so employed or retained, provided the injured servant did not know and had not the means of knowing the incompetency of his fellow-servant. A master is not, however, liable for injuries to one servant by the negligence of another on the ground of unskillfulness of the latter unless the injuries were caused by such unskillfulness.

A master does not warrant the competency of his servants, but must use all ordinary care and diligence in their selection and retention. If he has not been negligent in selecting a servant, and subsequently obtains knowledge of the servant's incompetence and still retains him, he is liable to another servant for any injury resulting from said

incompetence. If the employer had no actual notice of the servant's incompetence, if it was notorious and of such a character that with proper care he would have known of it, he will still be liable.

If a person, knowing the hazards of his employment as it is conducted, voluntarily continues therein without any promise by the master to do any act to render the same less hazardous, the master will not be liable for an injury he may sustain therein, unless it is caused by the willful act of the master. No servant is entitled to damages resulting from the incompetence of a fellow-servant when he knew of such incompetence and did not inform his employer of the same.

When it is alleged that the master has been guilty of selecting or retaining an incompetent servant, the burden of proof of said allegation is on the plaintiff. Neither incompetency nor unskillfulness will be presumed; they must be proved.

A master who has employed skillful and competent general agents or superintendents is liable for injuries received by inferior servants through the negligence of those employed by such general agents or superintendents without due care or inquiry, or retained by them after knowledge of their incompetence.

While the servant assumes the ordinary risks, and, as a general rule, such extraordinary risks of his employment as he knowingly and voluntarily encounters, he is not required to exercise the same degree of care as the master in investigating the risks to which he may be exposed; he has the right to assume that the appliances and machinery furnished him by the master are safe and suitable for the employment in which he is engaged; and to assume, when engaged in an occupation attended with danger and requiring engrossing duties, that the master will not, without proper warning, subject him to other dangers unknown to him, and from which his occupation necessarily distracts his attention; and he has the right to rely upon the taking by the master of all usual and proper precautions against accident, and his faithful fulfillment of all the duties devolving upon him.

If an employee is ordered by his master into a situation of danger and obeys, he does not assume the risk unless the danger was so obvious that no prudent man would have obeyed the order; and the master will be liable for any injury resulting to him by reason of such dangerous employment. If, however, he leaves his own place of work for one more dangerous, in violation of the master's direction, he can not recover for an injury sustained after such change.

If the servant, upon being ordered to perform duties more dangerous than those embraced in his original employment, undertakes the same with knowledge of their dangerous character, unwillingly and from fear of losing his employment, he can not, if injured, recover damages from the master; nor can he recover such damages where the injury

results from an unexpected cause during the course of his employment; nor where the injury is sustained in the performance of a service not within the scope of his duty, if his opportunity for observing the danger is equal to that of his employer; and where an employee voluntarily assumes a risk he thereby waives the provisions of a statute made for his protection.

BUREAUS OF STATISTICS OF LABOR.

In Belgium the *Office du Travail* (*Ministère de l'Industrie et du Travail*) was established in 1895 at Brussels, the official head of the office being entitled *Chef*. A superior council of labor (*conseil supérieur du travail*), which made investigations and reports on matters relating to labor, has been in existence since April 7, 1892. November 12, 1894, a separate labor bureau, similar to the American and French type, was created under the Department of Agriculture, Industry, and Public Works. But in 1895 this department was separated into two departments, known as Department of Agriculture and Public Works, and Department of Industry and Labor, and the newly created labor bureau was made a division under this latter department.

In France the *Office du Travail* (*Ministère du Commerce, de l'Industrie, des postes et des Télégraphes*) was established July 21, 1891, at Paris, the official head of the office being entitled *Directeur*. The publications of the bureau consist of special reports on particular subjects, of which a number are issued each year, and since January 1, 1894, a monthly bulletin, *Bulletin de l'Office du Travail*.

In Germany the *Kommission für Arbeiterstatistik* was established June 1, 1891, at Berlin. This is a permanent commission which issues special reports from time to time on particular questions and reports of the minutes of its meetings. The material collected by it is compiled by the Imperial Statistical Bureau.

In Great Britain the Labor Department of the Board of Trade was established in 1893 at London, the official head of the office being entitled Commissioner. A service for the collection and publication of statistics of labor has been in existence under the Board of Trade since March 2, 1886. In 1893 this service was greatly enlarged and given its present name. Its reports, therefore, date from 1886–87, and consist of annual reports of operations and statistical abstracts, annual reports on strikes and lockouts, annual reports on trades unions, annual reports on wages (contemplated), special reports, and, since May, 1893, a monthly Labor Gazette.

In Switzerland the *Secrétariat Ouvrier Suisse* was constituted December 20, 1886, at Berne. The *Secrétariat* is an officer of the federation of labor organizations, but is subsidized by the government, which directs him to make certain reports. His publications consist of annual and special reports.

In Ontario, Canada, a Bureau of Industries was organized under the Commissioner of Agriculture, March 10, 1882, the official head of the Bureau being styled Secretary. Annual and occasional special reports are issued.

In New Zealand a Bureau of Industries was created in 1892. In the following year the designation of the bureau was changed to that of Department of Labor. Its publications consist of annual reports and a monthly journal commenced in March, 1893, under the title Journal of Commerce and Labor, which after the issue of a few numbers was changed to that of Journal of the Department of Labor.

We have been informed unofficially that an office for the collection of labor statistics has recently been established in Spain.

The above statement is believed to include information concerning all bureaus of foreign governments specially created for the collection and publication of statistics relating to labor. It is not a statement, however, of the extent to which foreign governments publish labor statistics, as a great deal of valuable information on this subject is contained in the publications of the central statistical bureaus or other offices of foreign governments.

[illegible]	Bureau of Statistics
[illegible]	Bureau of Labor Statistics
Illinois	Bureau of Labor Statistics
California	Bureau of Labor Statistics
Wisconsin	Bureau of Labor and Indus
New York	Bureau of Labor Statistics
Michigan	Bureau of Labor and Indus
Maryland	Bureau of Industrial Statist
Iowa	Bureau of Labor Statistics
United States	Department of Labor
Kansas	Bureau of Labor and Industr
North Carolina	Bureau of Labor Statistics
Maine	Bureau of Industrial and Lab
Minnesota	Bureau of Labor Statistics
Colorado	Bureau of Labor Statistics
Rhode Island	Bureau of Industrial Statistic
Nebraska	Bureau of Labor and Industri
West Virginia	Bureau of Labor
North Dakota	Department of Labor and Stati
Utah	Bureau of Statistics
Tennessee	Bureau of Labor Statistics and
Montana	Bureau of Agriculture, Labor, a
New Hampshire	Bureau of Labor
Washington	Bureau of Statistics, Labor, Agri

a From organization to May 11, 1874, commissioner.

b Reestablished. A like bureau had been established July 12, 1873, which was abolished July 23, 1875.

c Reorganized. See preceding note.

d To March 9, 1889, annual.

e This act created a bureau of labor statistics, and was repealed by an act which created a Bureau of Labor Statistics and Inspection.

BUREAUS OF LABOR STATISTICS IN THE UNITED STATES.

[In some instances there have been changes in the official titles of officers. They are given as they exist at present.]

Date of act of establishment.	Year of organization.	Locality of the office (post-office).	Title of head of office.	Issue of reports.
June 23, 1869	1869	Boston	Chief	Annual.
April 12, 1872	1872	Harrisburg	Chief (a)	Annual.
April 23, 1885 (b)	c 1885	Hartford	Commissioner	Annual.
May 5, 1877	1877	Columbus	Commissioner	Annual.
March 27, 1878	1878	Trenton	Chief	Annual.
March 29, 1879	1879	Indianapolis	Chief	Biennial. (d)
May 19, 1879 (e)	1879	Jefferson City	Commissioner	Annual.
May 29, 1879	1879	Springfield	Secretary	Biennial.
March 3, 1883	1883	San Francisco	Commissioner	Biennial.
April 3, 1883	1883	Madison	Commissioner	Biennial.
May 4, 1883	1883	Albany	Commissioner	Annual.
June 6, 1883	1883	Lansing	Commissioner	Annual.
March 27, 1884	1884	Baltimore	Chief	Biennial.
April 3, 1884	1884	Des Moines	Commissioner	Biennial.
June 27, 1884 (f)	f 1885	Washington	Commissioner	Annual and special. (g)
March 5, 1885	1885	Topeka	Commissioner	Annual.
February 28, 1887	1887	Raleigh	Commissioner	Annual.
March 7, 1887	1887	Augusta	Commissioner	Annual.
March 8, 1887	1887	Saint Paul	Commissioner	Biennial. (h)
March 24, 1887	1887	Denver	Deputy Commissioner (i)	Biennial.
March 29, 1887	1887	Providence	Commissioner	Annual.
March 31, 1887	1887	Lincoln	Deputy Commissioner (j)	Biennial.
February 22, 1889	(k)	Charleston	Commissioner	Annual.
October 1, 1889	1889	Bismarck	Commissioner	Biennial.
March 13, 1890	(l)	Salt Lake City	Territorial Statistician	Annual.
March 23, 1891	1891	Nashville	Commissioners	Annual.
February 17, 1893	1893	Helena	Commissioner	Annual.
March 30, 1893	1893	Concord	Commissioner	Annual.
March 19, 1895	(l)	Olympia	(i)	(l)

f This office was created June 27, 1884, under the title of Bureau of Labor and the Commissioner appointed January 31, 1885. By an act passed June 13, 1888, the office was established as the Department of Labor.

g Also, bimonthly bulletins are to be published beginning with November, 1895.

h To April 24, 1889, annual.

i The secretary of state is ex officio commissioner.

j The governor is ex officio commissioner.

k First report issued December 1, 1894.

l No report yet issued.

BULLETIN

OF THE

EPARTMENT OF LABOR.

No. 2—JANUARY, 1896.

ISSUED EVERY OTHER MONTH.

EDITED BY

CARROLL D. WRIGHT,
COMMISSIONER.

OREN W. WEAVER,
CHIEF CLERK.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1896.

CONTENTS.

BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 2. WASHINGTON. JANUARY, 1896.

THE POOR COLONIES OF HOLLAND.

BY J. HOWARD GORE, PH. D., COLUMBIAN UNIVERSITY. (a)

The poor colonies here described are not a creation; they are a development. They have not been elaborated out of speculation as to what they ought to be, but forged into their present organic form under the fire of criticism and the shocks of adversity.

General van den Bosch, very soon after the devastating war which was terminated by the battle of Waterloo, saw in Holland thousands of families reduced to helplessness and poverty. He realized that workhouses as well as poorhouses very often feed pauperism; that they systematize it, place their stamp of recognition, if not approval, upon it, and by so doing increase it. Moreover, these provincial or municipal agencies were usually located in large cities into whose overcrowded streets the released or acquitted paupers were cast adrift to again become amenable to the poor law.

The problem, therefore, that presented itself to General van den Bosch was how to help the poor in their life struggle, not merely how to help them to tide over the demands of a single week or month. The first point that received decision was, that in whatever shape his hopes might be ultimately realized the location at least should be in the country. If the land is improved by man, he reasoned, then man can be improved by the land.

Through his influence, and chiefly through his instrumentality, there was organized in 1818 the Society of Beneficence (*Maatschappy van Veldadigheid*). Very soon thereafter the society purchased a large tract of

a Dr. Gore was the United States Commissioner-General to the International Exposition at Amsterdam in 1895. The information embodied in this article was collected by him during a visit to the poor colonies in July of that year.

barren uncultivated heath, which, with additions subsequently made, now contains 5,100 acres. It is situated near the center of the kingdom, northeast of the Zuyder Zee, about 5 miles from the town of Steenwyk, and at the junction of the three provinces, Drenthe, Friesland, and Overyssel.

With the alluring motto, "Help the people and improve the land," considerable enthusiasm was aroused, and in a short time there was enrolled a membership paying annually into the treasury of the society $22,000. The organization was in such a prosperous condition, and it was able to do so much for its beneficiaries, that it attracted the attention of the State. The proposition was soon made that the society take charge of the wards of the Government, that is, the beggars, foundlings, and orphans. The conditions offered were so favorable that the society accepted them.

It was at once realized that it would be unwise to put those declared by judicial acts to be incapable of self-support by the side of others who were being encouraged to believe in their ability to become sooner or later not only independent but contributing members of society. Consequently the organization, in order to keep these two classes apart, secured land and established two beggar colonies—one in Overyssel, named Ommerschans, and the other in Drenthe, named Veenhuizen.

At the two latter the society continued the generous policy which it had already inaugurated. Thus the beggar colonies became popular, and a man released at the expiration of his sentence did not rest until he succeeded in securing a second conviction. It therefore became necessary to add to each sentence such a term of imprisonment at hard labor as would efficaciously rob the stay at the colonies of the greater part of its charm.

Besides acting as an encouragement to begging and profligacy, the generous policy of the society toward the beggar colonists had a worse effect. There was so much said in police and court circles about the beggar colonies that people failed to discriminate between them and the free colony. They thought the Government was meeting all expenses, and soon lost interest in the institution which relied for its maintenance upon their contributions, and so it became a sort of State asylum. The free colonists felt that they were being placed on the same footing with a convict class, at least in the minds of many, consequently the institution which was originally intended to act preventively against pauperism by helping sinking families up to a livelihood—earning condition—now acted repressively against this very class.

In this condition of disrepute into which the free colony fell, colonists were so slow to take up the lands of the society that it was compelled to farm them itself, using the weak, unwilling members of the other colonies. This resulted in great loss to the society. It was not possible to break the contract with the Government, and an organization was needed to administer the conditions growing out of this contract.

In 1843 a reorganization was effected. Prince Frederick of the Netherlands accepted the presidency and secured such special favors from the Crown, such as the contract for making all coffee bags used by the chartered Dutch India Company, that the financial condition of the colonies rapidly improved. This, however, not only awakened hostility on the part of the factories throughout the kingdom, but it also transformed the agricultural colony into a manufactory and made mechanics instead of farmers. The usual result of a combination of such diverse purposes soon came and the society found itself in 1856 in debt to the amount of $3,000,000.

The State realized that it had been greatly benefited during this period, and also gave the society $1,500,000 with which to pay private creditors 65 per cent of their claims.

A complete reorganization followed. Ommerschans and Veenhuizen became government property and a complete disunion of the beggar and the free colonies took place. Naturally this experiment was looked upon as proving that agricultural colonies can not succeed. This prejudiced opinion should be kept in view in order that one may fully realize how handicapped the present organization is in its struggle to do good.

Still, the experiment had attracted the attention of philanthropists and even of other governments. During this time the colonies had been visited by official commissions from France, Austria, and Scotland.

The organization as at present constituted dates from September 15, 1859.

The underlying principle in the revised scheme seems plainly to be to assist the destitute in meeting his wants, and the wants of all who depend upon him, without suggesting a feeling of dependence and without disturbing the family relations.

It is likely that the affections as well as the exigencies of life, which have so effectually kept the Dutch families intact, have been potent in forming the conditions under which they began to dispense their benefactions; nor is it at all improbable that the large Jewish population, among whom the family ties are extremely strong, has been instrumental in giving directions to the elaboration of the systems now in vogue.

The entire conduct of the affairs of the society rests with a commission of five persons, one of whom is designated as chairman and another as secretary. This commission meets at regular intervals, either in Amsterdam or at the colony. It fixes the salaries of all employees, but selects only one, the director, who, being responsible for the faithful discharge of all duties by his subordinates, has the right to choose them.

All contracts are made by the commission, and, in short, it has all the rights and privileges of an ordinary corporation. It realizes that it is administering the affairs of a company to which a large number of persons make annual contributions, consequently it considers with

great care all propositions which look toward a change of policy or the venture of money.

In order to keep the contributing members of the society in close relations with the work which is being done, there is a general meeting held annually in Amsterdam, to which each branch society sends a delegate. This delegate has one vote for every twenty members in his local society.

These branch societies are the outgrowth of a club system. It was ascertained that a house and land enough for the support of one family had originally cost the society about $680, hence it decreed that whenever any person or party of persons paid into the treasury this sum of money he or they could have the privilege of sending to the colony one family, which should be retained there without further cost to the sender. Since it was not easy to find persons ready to contribute so much at once, a clubbing system was proposed and annual fees paid—in amount equivalent to the interest on $680 at 3 per cent. Thus it happens that for each multiple of twenty represented in the membership of a branch society or department it has a ward at the colony, and hence the supporters of this ward as well as the branch society should have a vote in the general meetings of the organization.

For every $20.40 annually contributed a department has the right to send one family to the colony, and this family remains there as long as this sum is paid. In return for this contribution the department receives reports periodically from the director regarding all of its families, with a statement showing the financial status of each. If attention is called to a needy family in a neighborhood in which there is an organized department with a sufficient sum to its credit with the society, the head of the family is sent to the colony on a tour of inspection. A railroad ticket is furnished him and all incidental expenses paid. If he returns favorably impressed, the entire family is given transportation thither. This time the trip is made by water, since this is cheaper, and time is not an important element, and one can go from almost any point in Holland to any other by water. This entire expense is met by the department which sends the family.

Upon arrival a house is provided and the immediate wants of the household attended to—not in the shape of gifts but advances, which must be paid for in installments according to conditions previously made known to the newcomer. He is also supplied with a sheep (ewe), which can be pastured on the society's farm for a small sum. On this he makes weekly payments. The purchaser is advised to insure this animal in the general funds of the society, so that in case of death it can be replaced without loss to the owner. At the very beginning a man is invested with the feeling of ownership, and a way is provided by which, with due economy, he may meet his obligations.

In passing it might be said that the ewe in Holland takes the place of the goat. The milk is quite as good and, in addition to the increase, the sheep yields wool enough to assist in clothing the family.

All the wage-earning members of this newly arrived family are at once put to work on one of the society's farms or in some of the shops or factories operated by it. Idleness is not tolerated. The children must either be learning a trade or be at school. Although the free-school system originated in Holland, the spirit of individual liberty is so current that no successful attempt has been made to institute compulsory education. But within the colony the people are subject to the regulations of the colony. Even if a boy's parents intend that he shall become a farmer, he must learn some simple trade, such as basket making, because there is so much time during the long winters when the farmer can not be at work in the ground. It is therefore well when he can occupy himself at this time with some profitable indoor occupation.

Wages, such as are current in the vicinity of the colony, are paid weekly, after having deducted: The installment on the debt incurred upon arrival; house rent, not exceeding 20 cents; 1 cent infirmary fee for each person; 4 cents for the clothing fund; and a reserve for the family emergency fund, equivalent to 10 per cent of the gross earnings. That all transactions may be thoroughly understood each debit and credit is entered in a pass book.

In this connection it is interesting to note that the boys and girls, even while serving as apprentices, are paid for each merchantable article they make. If a boy makes a good basket he knows exactly how much he will receive for it; but should the work be defective, his compensation will be less. This of course furnishes an important stimulus to put forth best endeavors and also tends to hasten the coming of the time when faultless jobs can be turned out.

After two years of probation, if the head of the family has given evidence of industrious habits and a commendable desire to pay his debts, he is promoted to citizenship, and is called a "vrijboer," or "free farmer." If there is a place available he is put on it—a farm of 7.7 acres—apparently a small one, but it is so fertile that it will readily support an ordinary family. This plot of land is either one just vacated for some reason, or else it has been in the hands of the society; therefore it is not barren, but is provided with such planted crops as would have been in place in case the tenancy had begun months before. If the occupancy should begin in midwinter, the farmer is furnished with fodder for five months, enough rye to sow 2.4 acres, and 33 bushels of potatoes. Again, these are not gifts; he becomes responsible for their cost as well as for the cow which was provided him. His wants are not magnified by the feeling that all he receives are gifts. He has just passed through the ordeal of paying debts on the installment plan, and fully realizes the pressure of debt and the slow and tedious process of removing it.

In return for the improvement made during the probationary period the farmer is admitted into new privileges. He has the full enjoyment of his farm, cultivates it as he *deems best*, can work for others when he

can spare the time, even going outside of the colony with the consent of the director, and has a vote in electing a delegate to the colonial council, while the only added burden is the rent for the land and a somewhat larger payment on his debts. The rent of course varies somewhat with the condition of the house and the fertility of the land, but the average annual rent is $20. The payment on his indebtedness is only $4 a year. In addition to this, he must each year put on the land $14 worth of manure, but this item is remitted in case he owns a cow and is duly saving of all manure.

It has been the purpose of the society to have all the houses alike and each plot of ground as desirable as any other. But this is impossible. Some of the houses are comparatively new, yet the older ones in many cases are more favorably located with respect to school and church. As is usual in Holland, the stable, barn, and house of the small farmer are all under one roof. One can step directly from the barn into the house, but the former is kept so clean that one would hardly notice that the rooms were put to different uses were it not for the surrounding furniture and utensils. The barn is large enough to house the entire products of the farm, the cow naturally not requiring much space. The house itself has two rooms and an attic—one used for a kitchen and dining room and the other for a sitting room and bedroom. The bedroom feature is not apparent, for, as is usual in this section, the beds are shelves in a closet, so that during the day when the closet doors are closed no suggestion of a bed can be seen.

The local department has the right to designate who shall be sent to the colony from its district, and the colony must accept the family sent. But the board of commissioners can, whenever it deems it best, dismiss or eject a tenant, whether he be laborer or farmer.

The department is responsible for the debts of those persons whom it placed in the colony, but it must receive from the society's officers quarterly reports of all its wards. These reports must indicate whether or not the conduct of each family concerned was satisfactory, how much it owed the society, and what change took place in the account during the preceding three months. If in any case the indebtedness should persistently increase, the department can announce its intention to withdraw all further assistance, but this does not exempt it from the payment of all accrued debts.

A man ordinarily can not remain in the colony as a laborer more than two years. If he fails in this time to give evidence of the possession of those qualities demanded of a farmer he must leave. But once admitted to the farmer class he may remain so during good behavior. There are several cases in which, after the death of the head of the family, the widow continued as tenant; and in one instance at least a son, after having attained majority, married and retained the farm.

That the conditions are regarded as favorable may be seen from the fact that of the 284 families residing in the colony in 1894 three classed

as laborers failed to qualify as farmers and hence were dismissed, while not a single farmer moved away.

While the lands of the society have been spoken of as the colony, there are in reality four subdivisions so important that each has its separate name; they are Frederiksoord, Wilhelminasoord, Willemsoord, and Colony Number Seven. The principal offices are at the first named, which is also the one nearest the town of Steenwyk.

The person immediately in charge of the colony, and who is responsible for the conduct of its affairs, is the director—at present Mr. Job van der Have. His duties are clearly defined in the regulations of the society under nineteen distinct heads, but they may be summarized as follows: He conducts the correspondence; executes the orders of the board of commissioners; looks after the receipts and expenditures; keeps a double-entry account with all the departments and employees; provides for the maintenance, liberty, and safety of the roads, bridges, waterways, farms, and open squares; protects the real and personal property of the society; controls the public health; inspects the schools; cares for the external interests of public worship; appoints or discharges all officers of the society denominated second class; makes up the budget for the coming year; formulates plans for the furtherance of the best interests of the colony; keeps a close watch over all the factories of the colony; in short, does everything that can possibly be done for the welfare and comfort of all concerned.

The director has such clerical help as is needed, including a bookkeeper, on whom falls the task of keeping several hundred rather complicated accounts. Then he has directly under him subdirectors, each of whom has immediate charge of one of the seven districts into which the colony is divided. The subdirector gives to the bookkeeper a weekly statement showing the amount of services rendered during that week and by whom. From these statements the bookkeeper makes up the credit sides of his accounts.

These officers have a still more important function. They, from frequent inspections, determine whether each farmer is getting the best possible yield from his land. If not, they give such advice as will enable him to farm more successfully. The undivided tracts, or large farms, are directly under these subdirectors, and, since the laborers are employed on these farms, it is they who are in the position to make the recommendation which, at the end of the two years already mentioned, either promotes the laborer to citizenship or dismisses him from the colony.

The counsel of the directors in agricultural matters is more than mere haphazard guessing. One of the Government agricultural experiment stations is located in the colony. Here experiments are conducted to determine specifically the best treatment of the soil in that immediate neighborhood and the kind of seed best suited to the land and the climatic conditions which there exist.

...ehold is emphasized by example
Holland has been compared to a vast garden,
vegetables that thrive in one part may be failu
colonists coming from other parts of the kingd
lessons of experience by having before them
experimentation.

The gardens of the School of Horticulture ha
ful vegetables, ornamental flowers, and the dail
the gay flower beds has awakened in many a re
beautiful, until now a large proportion of the hou
of flowers in the front yard or else potted plants i
officers of the society appreciate the elevating i
surroundings, even if limited to a few bright flowe
age the care and cultivation of them they give e
prizes for floral displays.

The statement should not be omitted that prizes
farmers for the general appearance of the farm, co
and yield of grain per acre.

Pupils of the School of Forestry have an excel
becoming acquainted with the practical side of the
in caring for the 943 acres of forest in the colo
ing the manual skill demanded they also have a
money, for since the forest needs this care all time
above what is required as a part of the course of st
Europe the subject of forestry receives considerab
the graduates of a good school readily secure situa

In the colony there are also such public sch

The society is absolutely free from religious bias. It has within the colony a Protestant and a Catholic church, and provides for the maintenance of both. But while the colonists are permitted to elect their church, they are required to see that their children are more than mere attendants upon service, for one of the rules provides that all children must know the catechism of their particular faith before the age of 14 is reached.

Since the majority of men who are sent to the colony are those who have passed through a life struggle of greater or less duration, they are of middle age or older. They are also people who have been obliged to undergo hardships, and for most of the time with insufficient nourishment, consequently they soon reach a helpless old age. It has been impossible in a short period of residence in the colony, even under the excellent system there in vogue, to lay by anything for these years of enforced idleness. The society has therefore erected an "Old Folks' Rest," and agrees to pay so much weekly toward the support of those unable to work. The colonists are urged to aid in the maintenance of this home, and they cheerfully meet the appeal to the extent of their ability. They know from recent experience the value of aid and the sweetness of charity.

At the time of my visit in July, 1895, there were 1,826 people in the colony. They were grouped as follows: Farmers, 199 families; laborers on probation, 85 families; individual laborers, not belonging to the foregoing, 165 persons.

During the preceding year there had been 35 births and 24 deaths in the colony, and 46 young men withdrew to accept positions or regular work outside.

To govern this large body of men, coming from all parts of the kingdom and bringing with them the traditions and habits of their native villages, is no simple matter nor can it be an easy task. It has been simplified somewhat by the society and made easier by calling on the colonists themselves to see to it that the rules were observed. In these regulations it will be noticed that there is a strong infusion of the golden rule, and the purpose is manifest to throw around the rising generation those influences which will lift it out of the helpless state. The rules forbid—

1. Disobedience, insubordination, or insult offered any officer of the society or any of its employees.

2. Fighting or disturbing the peace in any manner.

3. Drunkenness.

The fine inflicted for a violation of either of the above is from 10 cents to $1.20, or imprisonment for a period of from one day to three days, for the first offense and ejection from the colony for a repetition.

4. Absence from the colony in excess of the permissible twenty-four hours, or of the leave granted by the director.

A fine of from 4 to 20 cents for each twenty-four hours of absence over and beyond the leave is imposed, or an imprisonment as above. In this connection it should be said that this, as well as all other rules, applies to the resident officers of the society. The director can not absent himself for more than one day without the written consent of the president of the board, and the under directors, clerks, and all employees must obtain permission for similar absences from the director.

5. The occupation of quarters or buildings without the consent of the director.

The chief purpose of this rule is to compel the grown members of the families to live with their parents and not where fancy might lead them. Then, too, single men are occasionally admitted to the colony and it is necessary that the director should always know where they are located, and this would be impossible in the absence of such a regulation as the one just given. This is deemed of such vital importance that its violation is followed by immediate dismissal.

6. Loss, destruction, theft, or pawning of the property of another calls for the restoration of the property or its value, and a fine varying from 20 cents to $1.20.

A second offense brings about either imprisonment or ejection.

7. Injury to the morals of another condemns the offender to prompt dismissal.

The infraction of this rule is the one most dreaded. As can be inferred the majority of the colonists belong to a lower class, and their conceptions of morality and virtue are not so clear in their minds as to inspire proper conduct in the absence of such a regulation.

8. Wanton wastefulness, carelessness, and laziness are punished by imprisonment with a notification to that effect to the department which sent the offender.

No fine is imposed in this instance for the good reason that a person so worthless as to fall under the condemnation of this rule would not be in a position to pay a fine.

9. Refusal to pay his debts to the society demands a confiscation of the debtor's property and its sale.

But the society is extremely indulgent. It makes due and charitably due allowance for crop failures, sickness, or unexpected losses of any kind. At no time does it lose sight of the fact that its purpose is to help, and in all of its safeguards and efforts to protect itself there is evident an incentive directed toward the borrower to pay his debts. For a cash payment, made before it is due, of $8 he is given credit for an additional 80 cents, and the inability to meet his obligations brings to the farmer such special advice and encouragement from the authorities as will insure better returns from his farm in the future. This aid I know is efficient, for in looking over the accounts of a large number of the farmers I noticed only one who owed as much as $200, while I am sure that the average indebtedness was not one-fourth of that amount

Before getting too far from the subject it would be well to explain how the rules above given are enforced.

All questions pertaining to the welfare of the community, the trial of offenders, and matters of local interest are in the hands of a council consisting of the director, who is ex officio president; the bookkeeper, who is secretary; the treasurer of the society, and one delegate from each of the four subdivisions of the colony. These delegates belong to the farmer class and are elected annually, the laborers not having any vote in this election.

The laborer is not disfranchised in the election of state or local officers; this matter is beyond the jurisdiction of the society, nor is one released from his obligations to the State or province by being a member of the colony. However, the code of the colony is so satisfactory that all infractions of law and order within its domain that can be punished by its provisions are left to it.

The practical question comes, What does all this cost?

The last balance sheet, that for 1893, shows that the estimated value of the property is $533,274, and the indebtedness $43,380.

At the time of the last reorganization the indebtedness was $56,000, and to the war of the rebellion in the United States was attributed the responsibility for this debt. The contract which the society had for so many years following 1843 for making coffee bags had proved so profitable that the society, after its withdrawal from this contract, continued the manufacture of jute bags in competition with private firms. From 1861 to 1864 the coffee trade with the United States was demoralized, and all industries depending on this trade suffered loss.

The last balance sheet (1893) shows that the receipts and expenses were as follows:

RECEIPTS.

From members	$5,418.40
From special gifts	3,931.20
From rent of land and farm products	3,128.52
From forest	615.02
Profit on laborers' and apprentices' work	733.44
Total	13,826.58

EXPENSES.

Deficit for the preceding year	$745.94
Interest on debt	1,381.91
General expenses of administration	4,790.32
Religious services and special instruction	1,097.32
Ditching, road making, unproductive work, and losses in the various factories	8,092.00
Advances to colonists over and above returns	538.29
Total	16,645.78

That is a deficit for the year of $2,819.20, or $1.54 for each inhabitant.

To see how the inhabitant is taken care of, and to what extent, the accounts for one week of two extreme cases are presented:

Total .....

If 80 cents a week were allowed for bread, they
of $1.57 for sundry clothing and incidentals.

In the other family there were also seven pers
one above 10, two above 5, and one under 5. D
they earned $2.36, and spent as follows:

Installment and house rent .....
Infirmary fee .....
Clothing .....
Ten per cent for reserve fund .....
Potatoes .....
Bread, from the colony bakery .....

Total .....

That is 43 cents more than they earned. Becaus
nonearning members of this family it was allowed
it had an actual balance in its favor of 57 cents.

As already said, these are perhaps extreme cases
distinct types. In the first cited the man came t
young, his children were born there, and all were ac
of industry and frugality. The rooms of their hou
nished, a large mahogany chest of drawers represen
many weeks, the omnipresent clock was ticking agai
ng covered a part of the floor.

The head of the other family had been a mechanic
d, having failed in his efforts to support his f

stitution of the society and its annual reports, and then again during my sojourn in the colony in visiting the homes of the laborers; in walking over the farms of the citizens; in watching the happy children at play or their older brothers and sisters working in the basket factory, weaving jute, or drying fruits and vegetables; in looking through the home for the aged, the churches, the professional schools, and the public library. What more is desired? The society would answer, "More money." For, although they have reduced their bonded indebtedness to $37,200, the interest on this sum was last year one-third of the entire deficit.

This shortage is not through any bad management at the colony nor by the society. The departments did not pay their stipulated quota for each family that they had at the colony. Their payments fell short by almost identically the amount of the deficit. The society naturally expected the entire amount, they made their plans and promises accordingly, and their disappointment was shown in the untoward balance.

To say how many persons have been aided would be a mere recital of statistics; to attempt to estimate the amount of good accomplished would be impossible. As may be seen, the assistance is of the best possible character; people are helped to help themselves, they are taught self-reliance; faith in mankind is engendered by the faith that is placed in the individual. The class of persons benefited are in general those who lack opportunity, people unable from some fault or misfortune to make a start. The society practically says: "We will put you in a position to prove your worth, then if found worthy you shall have a start." The man thus addressed works with confidence that the promise will be kept, and knows that starvation will be kept from his family during this period of probation.

Experience has shown that the best results are obtained with people from small towns or from the country, while those who have lived in a large city, for a longer or a shorter period, chafe under the restrictions of the colony and show a reluctance to exchange the freedom of a city for its restraints. This experience also reflects itself in the donations as well as the interest, they being, per inhabitant, the minimum in Amsterdam and Rotterdam and the maximum in Utrecht and the smaller cities.

It must not be imagined that the colony is in any sense an agricultural normal school, that good farmers are here taught skill, wisdom, and experience, and sent throughout the kingdom to teach others by precept and example how to farm. As already intimated, but few, very few, families willingly leave the colony. And why should they? They would necessarily be renters wherever they should go, and in the colony there is land enough for generations to come. Here they are not subjected to exorbitant rents, their tenancy is secure, the manifested will is accepted as an important step in the doing, and their landlord is their best friend.

[illegible] When this socie[illegible] [illegible] a [illegible] [illegible] this fact and giv[illegible] [illegible] van Swiet[illegible] [illegible] perpetuate the memo[illegible] [illegible] The corps of [illegible] [illegible] importance of the worl[illegible] [illegible] Her Maje[illegible] [illegible]

[illegible] important fact that the be[illegible] [illegible] they are not caused to fe[illegible] [illegible] expelled by the acco[illegible] [illegible] of having found a [illegible] [illegible] free from selfish m[illegible] [illegible]

[illegible] [illegible] with the socie[illegible] [illegible] Mr. van Eeghen, sec[illegible] [illegible] Mr. Hecker, member of t[illegible] [illegible] gave me freely of his t[illegible]

THE INDUSTRIAL REVOLUTION IN JAPAN. (a)

BY WILLIAM ELEROY CURTIS.

Japan is becoming less and less dependent upon foreign nations for the necessities and comforts of life, and is making her own goods with the greatest skill and ingenuity. Since their release from the exclusive policy of the feudal lords, the people have studied the methods of all civilized nations, and have adopted those of each which seem to them the most suitable for their own purposes and convenience. They have found one thing in Switzerland, another in Sweden, another in England, others in Germany, France, and the United States, and have rejected what is of no value to them as readily as they have adopted those things which are to their advantage. It is often said that the Japanese are not an original people; that they are only imitators; that they got their art from Korea, their industries from China, and that their civilization is simply a veneer acquired by imitating the methods of other countries. All of this is true in a measure, but it is not discreditable. Under the circumstances that attend the development of modern ideas in Japan, originality is not wanted, but a power of adaptability and imitation has been immensely more useful. The Japanese workman can make anything he has ever seen. His ingenuity is astonishing. Give him a piece of complicated mechanism—a watch or an electrical apparatus—and he will reproduce it exactly and set it running without instructions. He can imitate any process and copy any pattern or design more accurately and skillfully than any other race in the world. It is that faculty which has enabled Japan to make such rapid progress, and will place her soon among the great manufacturing nations of the world.

It was only forty years ago that the ports of Japan were forcibly opened to foreign commerce. It was only twenty-eight years ago that the first labor-saving machine was set up within the limits of that Empire. Now the exports and imports exceed $115,000,000.

The following table shows the general character of the merchandise imported into Japan during the year 1894: (b)

Raw cotton	$9,551,961
Machinery, etc	7,974,543
Sugar	6,662,261

a The facts on which this article is based were collected by Mr. Curtis, personally, while in Japan during the past year.

b Values stated in American *gold on the basis of* 2 silver yen to the dollar.

Copper, brass, and lead .....
Books and stationery .....
Oil cakes .....
Hemp and jute .....
Other textiles .....
Silk goods .....
Wines and liquors .....
Glassware .....
Clothing .....

The chief exports from Japan in 1894 were a

Raw silk .....
Textile fabrics, mostly silk .....
Food products, mostly rice .....
Tea .....
Coal .....
Metals, mostly copper .....
Matches .....
Drugs and medicines .....
Floor matting .....
Porcelain .....
Fish, oil, and vegetable wax .....
Lacquer ware .....
Umbrellas .....
Straw plaiting .....
Bamboo and wooden ware .....
Tobacco .....
Fans .....
Paper and stationery .....

It is a curious fact that 10,273,401 [illegible]
screens, 155,670 [illegible]

The following table shows the distribution of the exports of Japan among the several nations, arranged according to the magnitude of the trade in the year 1894: (a)

EXPORTS BY COUNTRIES, 1890, 1892, AND 1894.

Country.	1890.	1892.	1894.
United States	$9,910,719	$19,337,486	$21,661,779
France	4,177,197	9,046,847	9,749,388
Hongkong	4,683,203	6,644,270	8,099,740
China	2,613,748	3,179,430	4,406,994
Great Britain	2,819,490	1,960,876	2,975,099
British India	295,393	711,145	1,844,079
Germany	423,461	470,391	758,774

The remainder of the exports of Japan are sent in small amounts to nearly every nation in the world.

The following table shows the source from which the imports of Japan come, arranged according to the magnitude of the trade in 1894: (a)

IMPORTS BY COUNTRIES, 1890, 1892, AND 1894.

Country.	1890.	1892.	1894.
Great Britain	$13,309,551	$10,394,666	$21,094,937
China	4,424,843	6,254,705	8,755,753
United States	3,437,266	2,994,027	5,491,279
British India	4,455,446	3,831,002	5,280,224
Hongkong	2,747,956	3,492,861	4,499,859
Germany	3,428,478	3,187,524	3,954,771
France	1,934,666	1,810,250	2,174,024

The Japanese coinage is based on the decimal system and corresponds with that of the United States. A rin was originally the same as a mill. Ten rin make 1 sen and 100 sen make 1 yen, which used to be as good as a gold American dollar, but is now worth about 51 cents. Therefore, a man who goes to Japan from the United States or Europe with money that is at par with gold finds his funds almost doubled immediately.

The industrial revolution that is now going on in Japan is quite as remarkable as the political revolution that occurred there thirty years ago, and equally important to the rest of the world. Until recently all the manufacturing done in Japan has been in the households, and 95 per cent of the skilled labor is still occupied in the homes of the people and in a measure independent of the conditions that govern wage workers in other lands. The weaver has his loom in his own house, and his wife, sons, and daughters take their turns at it during the day. It has always been the custom for children to follow the trade of their parents. The finest brocades, the choicest silks, the most artistic porcelain, cloisonné, and lacquer work are done under the roofs of humble cottages, and the compensation has heretofore been governed usually by the quality of the piece produced.

a Values stated in *American gold on the basis of 2* silver yen to the dollar.

who used to handle similar wares during
nnios, and their fathers followed the same busine
e relations between the producer and his agent h
nturies in the same family. Asana, the weaver, sells
great-grandson of the merchant who bought his gre
oduct. When a large order is to be placed, say, fo
ys or 10,000 embroidered shawls, the middleman
ong the families of his acquaintance who are in the
h work. If they are poor he advances them money
m materials. He is usually their banker and they
ount with him, being credited for whatever they furnis
th whatever money or supplies he gives them. If th
ead he advises them in making investments, and acts a
nsel in financial affairs. The relations between thes
n and their clients, which sometimes extend over prov
our States, have nothing to resemble them among
sses of Europe or America. They are the outgrowth
em, and to the credit of Japan it may be said that t
ch the working people have placed in their agents has
ayed. There has not been a fixed price for anythi
les of the country, but the producers have relied upo
to represent their interests and get as good prices a
wares, just as a large real estate owner depends up
t and sell his property to advantage.
will be seen that under this system organizations fo
ecting wages and hours of work have not been
, but guilds have been known for

rs, artists and decorators, carpenters, screen makers, confection-
eddlers, doctors, lawyers, merchants, and even thieves have had
to promote their mutual interests. Among the mechanics and
men the guilds have often been extended to include life insur-
and aid to those who are ill or infirm, like the mutual benefit
ies of the United States. Assessments were made upon the liv-
pay the doctors who have attended the sick and the undertakers
ave buried the dead.

only trade union that endeavors to control the wages and the
ng time of its members, so far as I was able to ascertain, in Japan
Guides' Association, which has its headquarters in Yokohama
cludes all of the professional guides and couriers in the Empire.
a tourist lands in Japan and applies at the hotel office or at a
for a guide, he is directed to the general agency, and the first man
list is assigned to him. As there are both good and poor, edu-
and ignorant, amiable and disagreeable, competent and incom-
t guides, this assignment is not always satisfactory, but a traveler
ways get the guide he wants sooner or later by applying for him.
happens to be low down on the list his patron must go without a
or employ someone else temporarily until his name is reached,
may arrange with the man who stands at the head to sell out his
e for a bonus in cash, or divide fees with him until his turn arrives
gular assignment. This arrangement is often annoying to trav-
but it gives every guide an equal chance, and protects them from
arice of popular guides and at the same time gives the unpopular
n equal chance for employment.

fees charged by guides in Japan are much less than in Europe,
gular terms being 2 yen ($1) a day, with 50 sen (25 cents) for
fare and second-class traveling expenses. Any guide who cuts
these rates or attempts to collect more, is disciplined by the
ation and often expelled.

re have been but two strikes in Japan. One of these occurred
g a railway construction gang, who were hired for certain wages
rk six days in the week, and were required to work seven without
ional compensation. When their protests were unheeded they
down their tools, and appealed to the police authorities for the
cement of the law which makes six days a week's labor, and pro-
that no employee of the Government or any corporation or pri-
individual shall be compelled to work more than six days in a
without extra compensation. Sunday is the usual day of rest
pan. Its selection is not due to law nor to religious scruples,
o public convenience and, perhaps, out of respect to foreign
ns. When what is known as the six-day law was passed the
rnment set the example by closing its offices on Sunday, and all
institutions followed suit. That law was originally suggested for
ary reasons.

The second strike in Japan occurred in Tokyo in the summer of 1895. A party of bricklayers engaged in building a factory near Tokyo had their hours of labor extended from twelve to thirteen because of a desire on the part of the management to complete the job and start the machinery as soon as possible. The men did not object to this increase of time, but asked a corresponding advance of wages, which, as they were getting only 12 cents a day in our money, would have been only 1 cent a day increase for each, or perhaps $1 a day for the whole gang. But the contractor refused and they quit work. He got other bricklayers to take their places, but they were induced to abandon him also, and as he persisted in his refusal to do what the men considered simple justice it was decided to send emissaries to all the other bricklayers in the city and ask them to join in a sympathetic strike. This attempt to introduce foreign methods into the conservative labor system of Japan was only partially successful. The greater part of the bricklayers employed in the city declined to join, but a thousand or more men, engaged upon the city waterworks, on some railway freight houses and other large structures, quit, and it was several days before the difficulty was adjusted. Public sentiment was aroused by the disturbance, and the contractor who caused the trouble finally compromised with his men and went back to twelve hours' work for twelve hours' pay.

The ancient system of household labor is being rapidly overturned by the introduction of modern methods and machinery. The older artisans are offering a vain resistance and can not be drawn from their antique looms and forges by any inducement that has yet been offered, but the younger generations are rapidly acquiring a knowledge of the use and value of labor-saving machinery and factories are being built in all parts of the Empire. The greatest progress thus far has been made in cotton spinning and weaving, but several iron mills have been established and machine shops are springing up all over the Empire. In four years the new treaties go into effect, when foreigners will be allowed to engage openly in manufacturing enterprises. Then their capital and experience will give a decided stimulus to mechanical industry and the increase in the productive power of Japan will be even more rapid than now.

The first manufactory established in Japan was a cotton mill down in the southwestern corner of the Empire, in the province of Satsuma, which has produced the best pottery and some of the greatest men. Prince Shimazu was its patron. Having learned something of modern arts and sciences from the Dutchmen who were allowed to remain on the island of Deshima, he started a laboratory on his estates in which he learned telegraphy, photography, and how to make glass, coke, and gas for illuminating purposes. A few years later he built a factory near his summer villa, which was half arsenal and half iron foundry. He made guns there and other articles of iron, and experimented with *explosives.*

All the work in both institutions was conducted under his personal supervision, with the assistance of Dutch chemists, from whom he heard that much could be learned about such matters from books. So he started a retainer to Nagasaki, charged with the duty of securing whatever books on chemistry, natural philosophy, and other scientific subjects could be bought or borrowed. And an order was left with a merchant at Deshima to procure for him a copy of every scientific publication that was issued. In this way a considerable library accumulated, and the books were translated to the prince, as fast as they came, by a schoolmaster who had learned English at Deshima and whose services were secured.

One of the books contained a description of the Arkwright spinning jenny; and the prince was so fascinated that he lost no time in ordering a machine through the Dutchmen. When it came and was operated he decided to introduce it among his people as a substitute for the old-fashioned spinning wheel. He built a stone factory and located a plant of 3,030 spindles, at a cost of 30,000 yen ($15,000), in a small town called Xiriiso, a suburb of Kagoshima. The machines were throstles and mules made by Platt & Bro., of Bradford, who sent an English engineer over to set them up and educate the operatives. The prince treated him like an equal, built him a fine large stone house, which is now the high-school building at Kagoshima, surrounded him with luxuries of every kind, and paid him a handsome salary. As the enterprise was not intended for profit, but for the purpose of introducing the art of spinning among the people, everything was conducted on a most elaborate and expensive scale, and the yarns produced were of superior quality.

As coal, which had to be brought from a neighboring province, was very expensive the prince sent out prospectors to examine his own territory in the hope of finding deposits, but they failed. He then conceived the idea of utilizing water power and commenced the construction of a canal 10 miles long, but the work was suspended at his death and never resumed. His sons took little interest in the enterprise, and soon became involved in the political complications which led to the restoration of the emperor, so the factory passed into the hands of a private citizen for several years, from whom the present prince of Satsuma purchased it.

The next factory was set up by Mr. Kajima, of Tokyo, in 1867, while the country was still disturbed by the war. It originally had but 720 spindles, but now operates 82,000 and is the largest in the Empire. These were the only factories in Japan until 1879, when the Government undertook to encourage such enterprises and established two well-equipped plants in different parts of the country to educate operatives and demonstrate the superiority of modern machinery. It set up four more in 1880, four in 1881, one in 1882, another in 1883, and still another in 1884. They served their purpose, made machine spinning popular,

gest in the Empire has 82,000 spindles, an
There are four with more than 50,000 spindles, and
than 25,000.

Most of the raw cotton used in Japan comes f
United States, but very little is shipped direct from
The import statistics do not disclose this trade.
that of Great Britain. The value of raw cotton al
Japan in 1894 was $9,551,961, while the total import
States are given as $5,491,279. More than one-ha
thirds, of that cotton was reshipped at Liverpool to
with an additional charge to allow a profit for the
freight on cotton by sailing vessels from the south
United States around the Horn would not be more
while the rate by steamer via England is about $8.
difficult to understand why shipments are not made d
explanation seems to be that cotton exporters in the U
not aware of the extent of the market in that country

The same is true to a certain degree as to iron. Th
oor iron ore in the northern provinces of Japan whic
ed for certain purposes if mixed with a better quali
ratively useless as it is, and pig iron imported from I
d Norway costs about 40 yen ($20 gold) a ton in Yo
two furnaces in Japan that might be used for sme
properly managed, but it would be much cheaper t
n the United States in pigs than in the ore.

he first genuine foreign factory to be established
ka Tokei Seizo Kubushiki Kwaish

The following are the present rates of wages paid in the city of Yokohama for an average working day of ten hours:(*a*)

DAILY RATES OF WAGES PAID IN YOKOHAMA.

Occupation.	Rate per day.	Occupation.	Rate per day.
Blacksmiths	$0.36	Porcelain makers	$0.24
Carpenters	.26	Pressmen, printing offices	.19
Carpenters, ship	.29	Roofers	.26
Compositors	.29	Sake brewers	.22
Confectionery makers and bakers	.17	Sauce and preserve makers	.24
Cotton beaters	.17	Screen makers	.26
Dyers	.24	Silk spinners (female)	.17
Jointers	.29	Stonecutters	.31
Laborers, ordinary	.19	Tailors, foreign clothing	.48
Lacquer makers	.24	Tailors, Japanese clothing	.24
Malting makers	.24	Tea-firing men	.14
Oil pressers	.24	Tea-firing women	.10
Paper hangers	.24	Tea pickers	.29
Plasterers	.26	Tilers	.31
Porcelain artists, ordinary	.38	Tobacco and cigar makers	.24
Porcelain artists, superior	.72	Wood sawyers	.29

The following are the rates of wages paid by the month: (*a*)

Farm hands (men)	$1.44
Farm hands (women)	1.20
Silkworm breeders (men)	1.92
Silkworm breeders (women)	.96
Weavers (women)	.96
House servants (men)	2.80 to 7.20
House servants (women)	2.40 to 4.80

Factory labor is paid even less than these prices. Middleton & Co., one of the most prominent tea-shipping houses in Japan, employ in their establishment a large number of persons, men and women, who work from 5 o'clock in the morning until 6 o'clock at night, with three intervals at 8, 12, and 3 o'clock, respectively, when they eat their rice and what other refreshments they bring with them and rest for twenty minutes or a half hour. The highest wages paid by the Messrs. Middleton are 42 sen a day, which is equivalent to 21 cents in United States currency. This is received by men who are experts in handling tea, and have acquired their proficiency by natural ability and long years of experience.

The lowest wages are paid to young boys and girls who pick over the tea leaves to remove the stems and other foreign substances. They receive 13 sen (6½ cents) a day for about twelve hours' work, not including their resting spells.

Of the entire force in the establishment 20 are paid 21 cents (United States currency) a day, 90 are paid 18 cents, 50 are paid 15 cents, 335 are paid 12 cents, 278 are paid 10 cents, 5 are paid 9 cents, and 30 are paid 6½ cents—and they board themselves.

The same rates are paid in all the tea "go downs," as they are called, and similar wages in the factories and manufacturing establishments throughout the country.

(*a*) *Values stated in American gold on the basis of 2 silver yen to the dollar.*

same labor would be paid from 50 cents to $5 a day. The capacity the factory when fully in operation will be 150 watches a day, a owing to the low price of labor they can be sold with a profit for per cent less than the market price in the United States and Euro

The following statement shows the rates of wages per day paid Japanese artisans and laborers: (*a*)

DAILY RATES OF WAGES, JAPAN.

Occupation.	Highest.	Lowest.	Ave
Blacksmiths	$0.60	$0.18	
Bricklayers	.88	.20	
Cabinetmakers (furniture)	.53	.17	
Carpenters	.50	.20	
Carpenters and joiners (screen making)	.55	.17	
Compositors	.83	.10	
Coolies or general laborers	.33	.14	
Cotton beaters	.45	.13	
Dyers	.60	.05	
Farm hands (men)	.30	.16	
Farm hands (women)	.28	.06	
Lacquer makers	.58	.15	
Matting makers	.50	.20	
Oil pressers	.34	.16	
Paper hangers	.60	.20	
Paper screen, lantern, etc., makers	.55	.20	
Porcelain makers	.50	.13	
Pressmen, printing	.70	.11	
Roofers	.60	.20	
Sauce and preserve makers	.40	.10	
Silkworm breeders (men)	.50	.10	
Silkworm breeders (women)	.25	.05	
Stonecutters	.69	.22	
Tailors, foreign clothing	1.00	.25	
Tailors, Japanese clothing	.56	.15	
Tea makers (men)	.80	.15	
Tobacco makers	.50	.11	
Weavers	.40	.07	
Wine and sake makers	.50	.15	
Wood sawyers	.50	.13	

The following are the rates of wages paid by the month: (*a*)

MONTHLY RATES OF WAGES, JAPAN.

Occupation.	Highest.	Lowest.	Aver
Confectionery makers and bakers	$12.00	$1.00	
Weavers (men)	12.00	1.00	
Weavers (women)	12.00	1.00	
Farm hands (men)	5.00	1.00	
Farm hands (women)	3.50	.49	
House servants (men)	5.00	.50	
House servants (women)	3.00	.59	

a Values stated in American gold on the basis of 2 silver yen to the dollar.

men with small fortunes, and although wages are very low nobody is very poor. There is not an almshouse in the entire country, and you never see a beggar on the street. Occasionally some poor leper stretches out his hand as you enter one of the gilded temples, but there isn't a country in Europe or America so free from street begging as Japan.

The people as a rule are frugal and economical, and manage to save a little even when they are working for 10 cents a day. They have few wants and are temperate. You never see a drunken man in the street. I spent four months in Japan and visited five of the principal cities. The only intoxicated people I saw were a party of young fellows dressed in fantastic costumes who were in a boat sailing down the river in Osaka. The city had been given over to great ceremonies and rejoicings on the return of the soldiers it sent to the war, and these young men—five or six of them—were continuing their celebration another day.

This sobriety is due to the use of tea instead of liquor as a beverage. Tea houses in Japan take the place of saloons and are about as numerous in the large cities as barrooms in New York or Chicago. But a pot of tea that will entertain an entire family can be bought for 2 sen (1 cent), which cheers and strengthens quite as much as malt or alcoholic liquors. The use of beer is, however, increasing so rapidly in Japan as to excite apprehension, and the Government is making it the subject of an inquiry. There is a brewery or two in nearly every city of size, and beer can now be bought at almost every tea house.

The new treaty which was negotiated by Secretary Gresham and Minister Kurino last winter at Washington makes Japan as free for foreigners as the United States, with the exception that they can not own real estate, and by a straight reading of the text it would seem that that is not prohibited. It provides that foreigners may trade by wholesale or retail, singly or with native partners, and says that they "may own, hire, and occupy houses, manufactories, warehouses, shops, and premises, and lease land," conforming, of course, to the laws and police regulations that apply to them and the natives of the country alike.

The treaty also provides that foreigners shall enjoy all rights and privileges enjoyed by natives "in whatever relates to residence and travel, to the possession of goods and effects, to the succession to personal estate and the disposition of property;" that they shall not be required to pay any higher taxes, imposts, or other charges than natives; that they may freely enjoy their own religion, bury their dead according to their own rites, and shall be exempted from military service, forced loans, and all other exactions. No higher duties are to be imposed upon the products of the United States than upon those of the most favored nation, and there must be perfect equality in the treatment of Americans and natives in the exportation of merchandise. The coasting trade, as is customary in all countries, is withheld

...ner they adjoin, and the cons
to the local officials.

Until now Japan, like China, Turkey, Egypt, a
which have not reached a high degree of civilizat
jected to what is called the doctrine of extraterritor
that the citizens of the United States or England
lized nation residing in those countries are subject
administered by their consuls, and not to the local an
If an American commits a crime in Japan to-day he
United States consul-general, according to the law
States, and not by the courts and laws of Japan. Th
citizens of European nations. If a Japanese citizen
against an American he is tried by the local authoritie
rule in civil as well as criminal cases is that the def
tried under the laws of his own country, and the pla
suit accordingly.

But Japan thinks she is sufficiently civilized to admi
foreigners, and has long demanded release from the ex
restriction.

There is no protection for foreign patents in Japan, b
strument or machine that comes into the country
road may be manufactured without interference or
alty; but no Japanese can obtain a patent upon a fo
must show that his idea is not only original in Jap
h him, and if it appears thereafter that he is mista
d a deception his patent is canceled. The processes
in all the industries of Japan have been inherit
...moved, and nearly all of th...

mon people receive in the public schools makes them abhor labor. It has always been the custom in Japan for families to follow the same trade or occupation for centuries after centuries, but when a boy receives an education superior to that of his father he seems to feel that the old mode of life and avocation are not good enough for him. If he is a farmer's son he wants to live in the city, and if he is the son of a mechanic he wants employment under the Government or some less laborious occupation than his family have followed. But I believe the Japanese are not peculiar in this respect. I think it is the rule all over the world that when a man acquires learning he wants to advance in other respects also and better his condition."

While the Japanese will soon be able to furnish themselves with all they use and wear and eat without assistance from foreign nations, they will be compelled to buy machinery and raw material, particularly cotton and iron. Therefore our sales will be practically limited to those articles. And the market for machinery will be limited as to time. The Japanese will buy a great deal within the next few years, almost everything in the way of labor-saving apparatus, but they are already beginning to make their own machinery, and in a few years will be independent of foreign nations in that respect also. Another important fact—a very important fact—is that they will buy only one outfit of certain machinery. We will sell them one set, which they will copy and supply all future demands themselves. This will go on until the new treaties take effect, when American patents will be protected.

They have very little wood-working machinery; and very little shoe-making machinery, for the people do not wear shoes. The same is true of knitting machinery, for they do not wear hosiery. I do not think that more than 20,000 out of the 41,388,313 people who compose the population of Japan wear shoes and stockings. Ninety per cent go barefooted and barelegged, women, children, and men, protecting their feet from the stones by wooden and straw sandals. The higher classes have the same sort of foot gear, but it is made in a more finished manner, and they wear little cloth affairs that they call "tabis" upon their feet. These are made of white or blue cotton, and do not go above the ankle bone. But the use of shoes and hosiery is increasing, and the people will grow into it as they have grown into other foreign notions.

Lumber is worth about twice as much in Japan as it is with us. Common lumber, which we sell for $10 and $12 a thousand feet, will bring 40 yen ($20 gold) there. This is due chiefly to the scarcity of timber and the great labor required to work it up by their primitive processes. They have been cutting timber off their mountains for 2,500 years, and although the forests have been reproduced again and again during that period it is difficult and expensive to get logs down from the mountain side in the absence of the necessary facilities. The lum-

[illegible] usually go into the woods and cut one log at a time, which they [illegible] out by hand or by oxen for many miles. Where streams are convenient they use them for floating timber as we do, but they have no sawmills in the mountains, although there is an abundance of water power everywhere.

They cut all their lumber by hand with a wide and thin saw during the seasons of the year when they have nothing else to do, and each man who is engaged in business that requires lumber usually buys his own logs and cuts them up himself at odd times. Women and men both work at it. One man or woman will work on the top of the log while another works underneath, but usually not with the same saw. I have seen four or five men working on the same log, each sawing off his own board. They raise the log at an incline of 45°, with one end on the ground and a rest about the middle, and when they work down to the rest they tie the strip to the log and begin at the other end again.

All the lumber is dressed by hand. There is but one planing mill in the country; that is in Yokohama. It employs about 150 hands, and curiously enough, its entire product is made into boxes and shipped [illegible] India. It does no business in the local market. The machinery came from Boston. The manager is thinking of enlarging the plant by adding a lath factory and machinery for making blinds and doors, also for the India market. I do not know why they do not sell their goods in the local market, but I presume there is a good reason for it; perhaps better prices in India.

The Japanese make all the woodwork about their houses by hand. [illegible] houses are entirely of wood. They are very skillful [illegible] cabinet and joiner work, and more rapid than our people. [illegible] tools are better adapted for doing close work than [illegible] very sharp. Besides, they give a great deal more [illegible] to an article than our carpenters and cabinetmakers [illegible] from nicked tools on their planed work. They [illegible] but mortise almost everything. It is usually [illegible] difficult to detect the joints except by the grain. [illegible] of their ships are made without a bit of iron. [illegible] everything is mortised.

[illegible], and as you look over the fields you can [illegible] with toy farms where children are playing [illegible] and raising samples of different kinds [illegible] everything is on a diminutive scale, and [illegible] that applied to a cloisonné vase. When [illegible] think of planting his corn, when [illegible] then, when it is three or four inches [illegible] in rows about as far apart as [illegible] farmer weeds his wheat field [illegible] his onion bed, and cultivates [illegible]

potatoes and barley with as much care as a Long Island farmer bestows upon his asparagus or mushrooms or his flowers.

When grain is ripe it is cut with a sickle close to the ground. The bottom ends are carefully tied together with a wisp of straw; the bunch is then divided and hung over a bamboo pole or a rope, like Monday's washing, to dry, sometimes in the field and sometimes in the back yard, and even in the street in front of the house. When it is thoroughly cured the heads of grain are cut off with a knife, and the straws are carefully bound up and laid away in bundles. The heads are then spread out upon a piece of straw matting and beaten with a curious old-fashioned flail. Another method of thrashing is to take handfuls of straw and pull them through a mesh of iron needles. After the thrashing is done the grain is taken up in a sort of scoop basket made of bamboo, and shaken by one woman who holds it as high as her head, while another woman stands by with a large fan which she waves rapidly through the air and blows the lighter chaff away from the heavier grains as they are falling. The richer farmers have separators built upon a primitive plan and turned with a crank. People often winnow grain by pouring it from a scoop upon a fan 3 or 4 feet wide, upon which it is tossed gently up and down, so as to leave the chaff in the air when it falls. Another method of thrashing is to beat the heads of grain upon a board or a row of bamboo poles.

In passing through country districts in a carriage or jinrikisha one finds the greater part of the roadway preempted by the farmers of the neighborhood for the purpose of drying their grain, which is spread out in thin layers upon long mats and raked over every now and then by an old woman in order that the particles at the bottom may get their share of the sun. The straw, which is still tied together in bunches, is hung over racks along the roadside during the day and carried under shelter at night to protect it from dampness as well as from thieves. Sometimes the racks are 30 or 40 yards long and 18 feet high, with a series of poles, and the farmer's wife or one of his daughters comes along at intervals to inspect the straw to see that it is curing evenly, for it is almost as valuable as the grain.

Every particle of straw is saved, and it is put to many uses. They make of it hats, shoes, ropes, roofs, matting, the partitions and floors of houses, water-proof coats, baskets, boxes, and a thousand and one other useful articles. They braid it for fences, too, and the finer, softer qualities are cut up for fodder.

There is little hay raised in Japan. The grass is wiry and indigestible. It cuts the intestines of animals. Some alfalfa is grown, but it does not prosper. In the neighborhood of Kobe, which is one of the seaports on the southern shore, the soil seems to be better adapted for hay, and the best beef comes from that locality.

The ordinary Japanese horse, which originated in China and is called a griffin, seems to like straw and thrives upon it, but he is small and

ugly, and is not capable of much endurance. He resembles the Texas broncho in appearance, but a journey of 15 miles will use him up. They chop the straw very fine for feeding purposes, mix it with oats, barley, millet, and other grains, and by adding water make a kind of mush. Oxen are given the same food, and in some portions of the country one sees a good many of them. They draw their loads by ropes stretched from a collar to the axle of the two-wheeled cart. One man leads them by cords attached to rings in their noses, while another steers the vehicle with a tongue that sticks out behind.

On rare occasions you find a man plowing with a cow or an ox, but more frequently with man or woman power. The Japanese plow is a section of the trunk or the branch of a young tree with a proper curve to it, and is all wood except a narrow, pointed blade, fitted into the framework. It has only one handle.

Every variety of agriculture is carried on in a manner similar to that described, and the soil is in constant use. A couple of acres is considered a large tract of land for farming purposes. Most of the farms are of smaller area, and the crops are greatly diversified. Upon such a little spot of land will be grown almost everything known to the vegetable kingdom; a few square feet of wheat, barley, corn, and millet; a plat of beans perhaps 10 feet wide by 20 feet long, an equal amount of potatoes and peas, then a patch of onions, about as big as a grave, beets, lettuce, salsify, turnips, sweet potatoes, and other varieties of cereals and roots occupy the rest of the area.

The farmer looks upon his growing crop every morning just as an engineer will inspect the movements of his machinery, and if anything is wrong remedies it. If a weed appears in the bean patch he pulls it up; if a hill of potatoes or anything else fails it is immediately replanted. And when he cuts down a tree he always plants another to take its place. The artificial forests of Japan cover many hundreds of square miles, and by this accuracy, economy, and care the prosperity of the country is permanently assured. As one crop is harvested the soil is worked over, fertilized, and replanted with something else.

The largest area of agricultural land in Japan is devoted to raising rice, perhaps as much as nine-tenths of the whole, and as that crop requires a great deal of water, the paddy-fields are banked up into terraces, one above the other, and divided off into little plats 25 or 30 feet square, with ridges of earth between them to keep the water from flowing away when they are flooded. All farming lands are irrigated by a system that is a thousand years old. Some of the ditches are walled up with bamboo wickerwork and some with tiles and stone.

The farmers live in villages and their farms are detached, sometimes a mile, or 2 and 3 miles, away from their homes. There are no fences or other visible marks of division, but every man knows his own land, for it has been in his family for generations. Irrigating ditches and little paths are usually the boundary lines. Theoretically all the land

belongs to the emperor, but the greater part of that under cultivation has been held by fee simple, and the title descends from the father to the oldest son. Sales are made and recorded very much as they are in this country, and land is mortgaged to secure loans. The actual value of every acre is fixed upon the assessor's book for taxation purposes.

The official statistics of Japan show that there are 11,400,008 men and 10,948,053 women engaged in agriculture, which is nearly one-half the total population.

The tools used in the cultivation of the ground are peculiar to Japan and quite curious. Most of them are homemade and have never been imitated by foreign manufacturers. The farmers employ their winter evenings and stormy days in making new implements and repairing old ones, with a little aid from the neighboring blacksmith or traveling tinker. Many men make a business of traveling from village to village during the winter with a small portable forge to assist in repairing tools for the next season.

The workingmen of Japan have no reason to complain that the women do not carry their half of the load. Whatever may be the position of the gentler sex in the household, although she is not allowed to hold property or share in the responsibilities that are usually divided between husbands and wives in America, she is at least admitted to an equality with men when there is any hard work to be done. Wherever you go, in the cities or villages or the farming communities, you find the wife and mother working side by side with the husband and sons, plowing, planting, and reaping, and at sunset taking home a large portion of the harvest in a big basket on her back. Whenever you see a man between a pair of tiny shafts tugging to haul a heavily loaded cart uphill there is always a woman pushing from behind, bareheaded and barefooted, except for a pair of straw sandals, and wearing a pair of blue cotton leggings like tights extending from her waist to her ankles. Sometimes the baby is playing with a few rude toys on top of the load. Sometimes he is strapped to her shoulders and his head drops from one side to the other with every motion of her body until you fear it may fall off.

Silk and tea, the two chief exports of Japan, are raised almost entirely by the labor of women, and in the mechanical arts she appears to participate equally in the labor, although she gets little or none of the credit. Her deft fingers fashion many of the choicest pieces of cloisonné and the ceramics, and in the decoration of lacquer that which comes from her hands is equal and often superior to the work of men. She weaves mats and other articles of straw, she braids bamboo baskets, and a thousand and one other articles that are made from that useful tree. She goes out with her husband in fishing boats and dries and salts the catch he brings home; she assists in house-building and cabinetmaking, and in various other occupations which

the matters that pertain to the household.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

COLORADO.

The Fourth Biennial Report of the Bureau of Labor Statistics of Colorado is for the years 1893 and 1894. The introduction consists largely of a description of the new State capitol, and the address of the Commissioner to the Industrial Congress assembled at Denver in July, 1894. The subjects treated in the report may be grouped as follows: Farms, homes, and mortgages, and manufactures, 8 pages; cost of producing silver and facts relating to smelter production, 14 pages; wages, incomes, living expenses, and prices, 189 pages; strikes, 25 pages; Labor Commissioners' reports and what they contain, 60 pages; miscellaneous matter, 133 pages.

The presentation under each of these titles, with the exception of the cost of producing silver, smelter production, and strikes, consists, principally, of systematic compilations from numerous publications on statistical and sociological subjects.

COST OF PRODUCING SILVER AND FACTS RELATING TO SMELTER PRODUCTION.—The cost of production is shown for the two principal silver-producing districts of the State, and is accompanied with a statement of the product of the smelting plants and smelter and mine wages. The State, in 1892, produced 24,000,000 ounces of fine silver, or over 58 per cent of the total production of the United States.

STRIKES.—A brief statement is given of the strikes and labor troubles occurring in the State during 1893 and 1894. The account of the different strikes is followed by the conclusions and recommendations of the commission appointed to investigate the Chicago strike of June–July, 1894.

It is stated in the address above referred to that in March, 1893, a canvass of Colorado towns was made in order to ascertain the number of unemployed in the State. The returns showed an aggregate of about 8,000 persons, male and female, out of employment. This number probably represented the normal unemployed in the State at that season of the year. After the decline in silver, in June, a further canvass showed that during the sixty days ending with August 31, 1893, the number had increased to 45,000, and of these 22,500 were reported as having left the vicinity where they were employed.

ILLINOIS.

The Eighth Biennial Report of the Bureau of Labor Statistics of Illinois, 1894, contains 430 pages, devoted to a discussion of the subject of taxation, and an appendix, comprising 59 pages. The appendix con-

TAXATION.—In introducing the subject of tax
the report is stated to be to expose existing me
special reference to their effect upon labor interest
such reforms in the tax system of the State as ma
the condition of the laboring class. The scope, p
the bureau, the present condition of workingmen,
trial poverty, and the different schemes of taxation

The general property tax is the system in vogue
city of Chicago is selected as the central field of th

The taxation of personal property is treated sepa
real estate. The statutes of the State require perso
listed yearly. The assessor is empowered to swear
party making the report, and in case of a refusal to
is required to list the property to the best of his abilit
statement gives the totals of a series of tables intro
extent of the undervaluation of the moneys, credits, et
than national), bankers, brokers, and others, also th
State and national banks in Cook County:

ASSESSED VALUE OF MONEYS, CREDITS, ETC.

Items.	Cook County.	T o Co
opulation, census of 1890	1,191,922	
ankers, brokers, and stockjobbers:		
Moneys	$43,925.00	$3,
Per capita value	.037	
Credits	10,000.00	1,
Per capita value		
rsons other than bankers, brokers, and stockjobb		

Items similar to those given in the above statement are shown for a number of selected counties in comparison with Cook County. As further illustrative of the undervaluations in Cook County, tables are presented which show that according to the report of the State auditor the net taxable credits and moneys of 27 State banks in Chicago, on June 5, 1893, amounted to $1,058,105.25 and $18,991,771.67, respectively, while the amounts of these items listed for taxation, May 1, 1894, by all the banks in the city (national banks excluded) amounted to $10,000 and $43,925, respectively.

The following statement shows the value of the capital stock and surplus fund of State and national banks, the former as reported to the State auditor June 5, 1893, and the latter as reported to the Comptroller of the Currency, May 5, 1893; also the assessed valuation for 1893:

ACTUAL AND ASSESSED VALUE OF CAPITAL STOCK AND SURPLUS FUNDS OF BANKS IN CHICAGO, 1893.

Kind of bank.	Capital stock and surplus fund.		Per cent of assessors' valuation of reported value.
	Values reported to State auditor and Comptroller of the Currency.	Assessors' valuation.	
Eighteen State banks	$16,387,000	$1,485,000	9.06
Eighteen national banks	30,504,000	4,771,050	15.64
Total	46,891,000	6,256,050	a 11.21

a Figures here apparently should be 13.34; those given are, however, according to the original.

The undervaluation of certain classes of personal property in Cook County is shown by a comparison of their valuations with those of similar property in the other counties of the State. The following statement summarizes the totals for some of the classes:

AVERAGE ASSESSED VALUE OF MISCELLANEOUS PERSONAL PROPERTY, 1894.

Class of property.	Cook County.			The State, exclusive of Cook County.			The State.		
	Number.	Persons to each.	Average value.	Number.	Persons to each.	Average value.	Number.	Persons to each.	Average value.
Fire and burglar proof safes	397	3,002.32	$29.60	9,967	264.32	$21.54	10,364	a 327.10	$21.84
Steam engines and boilers	643	1,853.69	204.91	9,536	276.26	b 125.24	10,179	375.91	130.37
Pianos	11,230	99.91	28.39	31,757	82.96	30.24	43,687	87.59	29.74
Watches and clocks	7,597	156.89	3.78	326,016	8.08	1.94	333,613	11.47	1.98
Sewing and knitting machines	5,232	227.81	4.47	223,315	11.80	c 3.95	228,547	16.74	3.98
Billiard and pigeonhole tables	154	d 7,739.10	e 22.00	1,911	1,378.56	19.09	2,065	1,852.95	19.31

a Based on the population of 1890 (3,826,351), the figures here should be 369.20; those given are, however, according to the original.

b Based on a total value of $1,195,310, the figures here should be $125.35; those given are, however, according to the original.

c Based on a total value of $887,036, the figures here should be $3.97; those given are, however, according to the original.

d Based on the population of 1890 (1,191,922), the figures here should be 7,739.75; those given are, however, according to the original.

e Based on a total value of $3,385, the figures here should be $21.98; those given are, however, according to the original.

division is distinctively a home region for w
moderate means; the South division, besides
of most of the wealthy people of Chicago, en
center; the North division is the home of p
ranked as neither rich nor poor. The laws
tract or lot of real property to be valued at
mated at the price it would bring at a fair v
are directed to actually view and determine,
the fair cash value of each tract or lot of lan
each tract or lot of land not improved, and the

The extent of the undervaluation for the pur
illustrated by a series of tables, that compar
erected during a number of years, as shown b
with the assessed value of all real estate. T
summarizes the general results of the comparis

COST OF BUILDINGS AND ASSESSED VALUE OF ALL R

Items.	Division o	
	North.	South
Buildings erected, 1876 to 1893	8,569	14,
Cost	$68,718,157	$174,817,
Average cost	$8,019,39	$11,95
Per cent of total cost	16.43	4
Assessors' valuation, all real estate, 1893	$15,744,560	$64,364,
Per cent of cost of buildings	22.91	3
Cost of buildings erected, 1890, 1891, and 1892	$15,500,000	$62,628,
Per cent of assessed value of all real estate, 1893	98.45	9

Leaving out entirely the

es by years, of a number of [illegible] of property in n of Chicago that were vacant [illegible] 1894. roved in one or two of these years [illegible] tables are summarized by years, [illegible] own are as follows:

F UNIMPROVED AND [illegible]

	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
round—			
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
d	[illegible]	[illegible]	[illegible]
d and improvements	[illegible]	[illegible]	[illegible]
d and improvements	[illegible]	[illegible]	[illegible]

hould be $1,959; those given are, however [illegible]

hould be $346,657; those given are however [illegible]

ation of certain property in the business district of years from 1890 to 1894, inclusive, the figures being each piece of property, and summarized as follows:

[illegible]

If for purposes of taxation sites are assessed
buildings at 15 per cent of real value, it is cle
cheap residences will pay a great deal higher ta
value of their property than any other class."

Continuing the comparison between the assessm
ent classes of property, the following statement s
for a number of tables:

TRUE AND ASSESSED VALUE OF LAND AND OF IMPROV

Items.	Class of property		
	Business and office.	Choice residence.	Che reside
Pieces of property	70	30	
True value, 1893	$100,503,500	$4,226,000	$69,
Average value	$1,435,764	$140,867	$
Assessors' valuation, 1893	$9,039,250	$328,860	$11,
Per cent of assessors' valuation of true value	a 9.67	7.78	15.

a Not including two pieces of ground and one building which were

The centralization of land ownership is shown b
The first table gives an alphabetical list of the ov
estate in the business center of Chicago, except
national and local governments, religious and educ
and railroads. The number of pieces and the nu
square feet owned by each are given, and the ass
ground and improvements, respectively, are

quarter of the total assessed valuation. Of the 1,198 owners 340 were women, who owned 20.49 per cent of the pieces of property and 16.86 per cent of the total square feet.

The holdings of nonresidents in the business section of the city are described and summarized for the year 1894 according to the States in which the owners reside.

The disproportion between the assessed value of unimproved and improved land is shown by a series of tables giving a description, and the assessed values by years, of a number of pieces of property in the business section of Chicago that were vacant in 1892, 1893, and 1894, or that were improved in one or two of these years but vacant in the others. These tables are summarized by years, and some of the principal items shown are as follows:

ASSESSED VALUE OF UNIMPROVED AND IMPROVED PROPERTY IN CHICAGO.

	1892.	1893.	1894.
Unimproved property:			
Pieces	128	94	99
Front feet	5,192.7	3,495.2	3,827.7
Square feet	573,267.4	370,012.6	449,353.6
Assessors' valuation of ground—			
Per front foot	$179.633	$146.349	$160.676
Per square foot	$1.627	$1.382	$1.368
Total	$932,780	$511,520	$615,020
Improved property:			
Pieces	27	61	56
Front feet	1,693.0	3,480.5	3,058.0
Square feet	210,380.3	413,635.1	334,294.1
Assessors' valuation—			
Ground	$412,100.00	$838,860.00	$729,360.00
Improvements	174,790.00	861,320.00	929,550.00
Total	586,890.00	1,700,180.00	1,658,910.00
Average valuation—			
Per front foot, ground	243.414	241.017	238.509
Per square foot, ground	a 1.954	2.028	2.182
Per front foot, ground and improvements	b 346.893	488.487	542.482
Per square foot, ground and improvements	2.789	4.110	4.962

a Figures here apparently should be $1.959; those given are, however, according to the original.
b Figures here apparently should be $346.657; those given are, however, according to the original.

The assessed valuation of certain property in the business district of Chicago is shown by years from 1890 to 1894, inclusive, the figures being given separately for each piece of property, and summarized as follows:

ASSESSED VALUATIONS IN CHICAGO, 1890 TO 1894.

Class of property.	Persons to whom listed.	Pieces of property represented.	Assessors' valuation.				
			1890.	1891.	1892.	1893.	1894.
Ground	38	45	$648,650	$707,600	$869,400	$903,200	$857,450
Improvements	143	189	2,358,750	2,518,000	3,492,800	3,566,100	2,736,860
Total	181	234	3,007,400	3,225,600	4,362,200	4,469,300	3,594,310

Statements similar to the above, for the years 1892, 1893, and 1894, are given for the separate pieces of property owned by forty-two of the largest owners of property in the business district of the city.

ASSESSED VALUATION, ALL CLASSES OF PROPE

Class of property.	Assessed values in	
	1873.	189
Personal property	$287, 292, 809	$145, 31
Lands	582, 416, 667	320, 96
Town and city lots	317, 199, 235	293, 27
Railroads (all property)	133, 807, 823	82, 27
Corporations other than railroads	20, 896, 462	5, 363
The city of Quincy	13, 788, 271	(a)
Total	1, 355, 401, 317	847, 191,

a Assessment of the city of Quincy included in Adams

ASSESSED VALUATION, ALL CLASSES OF PROPERTY, ILLIN

Class of property.	Assessed values in—	
	Illinois, 1893.	Indiana, 18
Real estate	$614, 239, 040	$843, 381, 6
Personal property	145, 318, 406	291, 085, 8
Railroad property	82, 270, 090	157, 743, 0
Corporations other than railroads	5, 363, 979	b 4, 983, 1
Total	847, 191, 515	1, 297, 193, 6

a Figures here apparently should be 100.31; those given are, however, acc
b Includes telegraph, telephone, express and palace car companies only.
c Excess in favor of Illinois.

The population, according to the United States cens
Illinois 3,826,351 and for Indiana 2,192,404.

The evils of the existing system of taxation and t
discussed under appropriate heads. The impracticabi
sonal property, the desirability of exempting improve
tion, and the practicability of site

the laboring class with taxes, are diminishing opportunities for employment, dangerously concentrating ownership of land, and generally promoting the interests of the very rich at the expense of the rest of the community. A number of recommendations are made for additional legislation to remedy these evils.

The report on taxation is closed with a series of tables giving in detail every sale of property coming under the investigation of the bureau for each of the years 1890, 1891, and 1892, and for the years 1893 and 1894 considered together, showing the amount of the consideration as expressed in the warranty deeds, and the assessments on the same property for each of the years in which the property was sold; also recapitulations showing the same facts by classes of property, according to value, for each year from 1870 to 1892, inclusive, and for the years 1893 and 1894 considered together.

MAINE.

The Eighth Annual Report of the Bureau of Industrial and Labor Statistics of Maine for the year 1894 treats of the following subjects: Manufacturers' returns of the effects of the business depression, 51 pages; factories, mills, and shops built in 1894, 3 pages; census statistics, 10 pages; retail prices, 36 pages; pulp and paper making, 13 pages; publishing business, 12 pages; part of the proceedings of the tenth annual convention of the National Association of Officials of Bureaus of Labor Statistics, 24 pages; the labor laws of Maine, 10 pages; report of the inspector of factories, workshops, mines, and quarries, 46 pages.

MANUFACTURERS' RETURNS OF THE EFFECTS OF THE BUSINESS DEPRESSION.—These statistics are the result of two investigations, one in July and the other in October, 1894, the reports being collected by correspondence. Two hundred and twenty-four reports were received in answer to the first call, representing nearly all the cotton factories, large woolen mills, and other important manufacturing establishments in the State. While the replies to the second call were not so numerous and complete, they show an improved condition in some industries and but slight changes in others. The returns are presented in detail, and show for each establishment and industry the working time and number of employees when running on full time and during July, 1894; also whether wages have been reduced since April 1, 1893, and the per cent of reduction. The reports for July are followed by those for October, which show the changes that occurred in each establishment between July and October.

While the report does not present a statistical summary of the effects of the industrial depression on all industries, the Commissioner states that "Maine has, undoubtedly, felt the bad effects of the business depression to a much less degree than other sections of the country." It appears

that the total loss in the number of men employed on the railroads the State during 1894, as compared with 1893, was 412, and in wag $181,026.54.

FACTORIES, MILLS, AND SHOPS BUILT IN 1894.—The cost of w in building or enlarging factories, mills, and shops in the Stat shown to have decreased from $3,023,850 in 1891 to $663,700 in 18 while the number of men employed on such work was 4,278 in former and 1,039 in the latter year. This showing is made by coun and towns, the character of the industry being indicated for e establishment.

CENSUS STATISTICS.—These consist of a reproduction of some the totals of the Eleventh Census of the United States that pertai the State of Maine.

RETAIL PRICES.—The lowest, highest, and average retail price July, 1893, and July, 1894, for the necessaries of life are shown for e of the principal cities and towns of the State. The results are s marized so as to show the average price of each article by counties for the entire State. The average prices for the State in July, 189 the articles enumerated are as follows:

AVERAGE RETAIL PRICES IN JULY, 1894.

Article.	Average retail price.	Article.	Ave re pr
Apples, cooking, per peck	$0.232	Halibut, fresh, per pound	
Apples, dried, per pound	.092	Kerosene, per gallon	
Apples, evaporated, per pound	.161	Lamb, per pound	
Beans, white, per peck	.667	Lard, per pound	
Beans, yellow eyes, per peck	.713	Mackerel, fresh, per pound	
Beef, corned, per pound	.069	Mackerel, salt, No. 2, per pound	
Beef, steak, per pound	.179	Milk, per quart	
Beef, roasts, per pound	.140	Molasses, good, per gallon	
Beef, soup, per pound	.042	Mutton, per pound	
Butter, best, per pound	.230	Oatmeal, per pound	
Cabbage, per pound	.023	Onions, per pound	
Cheese, per pound	.147	Pickles, per quart	
Coal, stove, per ton	6.400	Pork, clear, per pound	
Cod, fresh, per pound	.061	Potatoes, per peck	
Cod, dried, per pound	.067	Raisins, cooking, per pound	
Coffee, roasted, Rio, per pound	.286	Rice, per pound	
Coffee, roasted, Java, per pound	.359	Salt, 20 pounds, box or bag	
Corn meal, per pound	.021	Sausage, per pound	
Cranberries, per quart	.110	Soap, hard, per pound	
Cracked wheat, per pound	.048	Sugar, granulated, per pound	
Crackers, per pound	.077	Tea, Oolong, per pound	
Eggs, per dozen	.179	Tripe, pickled, per pound	
Flour, family, per barrel	3.950	Vinegar, per gallon	
Flour, best, per barrel	4.680	Wood, hard, sawed and split, per cord	
Ham, sliced, per pound	.177	Wood, soft, sawed and split, per cord	

PULP AND PAPER MAKING AND THE PUBLISHING BUSINESS.— presentation concerning these industries consists of a descriptio their development in the State, and of the special inducements off to manufacturing enterprises by the natural resources of Maine.

REPORT OF THE INSPECTOR OF FACTORIES, WORKSHOPS, MI AND QUARRIES.—This is the annual report made to the commissi of the bureau, and incorporated in his report, as required by Many devices for covering the dangerous parts of machinery o

ing safeguards around other points of danger are described, the criptions being, in most cases, accompanied by cuts and figures. matter of fire escapes receives attention and several illustrations introduced. Other parts of the report relate to fire extinguishers, itary matters, and child labor—the cost of sanitary improvements le during the year and the number of children employed in factories ted by the inspector being given.

MARYLAND.

he Third Annual Report of the Bureau of Industrial Statistics of ryland for the year 1894 treats of the following subjects: Statistics nanufactures, agriculture, and mortgages, 66 pages; personal prop- y values, 10 pages; sweat shops, 35 pages; the unemployed, 57 ges; strikes, 24 pages.

Personal property values, sweat shops, strikes, and a part of the pres- ation for the unemployed are the results of original investigations. atistics of manufactures, agriculture, and mortgages are a reproduc- n of the totals of the Eleventh Census of the United States for aryland.

PERSONAL PROPERTY VALUES.—This investigation was designed to row some light on the distribution of wealth. It deals with the val- es of personal property only. The inquiry was confined to the exami- ation of 3,498 estates probated in Baltimore City during the period rom 1875 to 1880, and 5,914 estates probated from 1888 to 1893. The esults show that during the former period 64, or 1.8 per cent, of the estates represented 52 per cent of the total value of all, leaving 3,434 estates to represent 48 per cent of the value. During the latter period 89, or 1.5 per cent, of the estates aggregated 44 per cent, or nearly one- half, of the total value. The number and value of the estates by classi- fied valuations, ranging from $500 and under to $100,000 and over, are shown for each year covered by the investigation. The following sum- mary presents the totals for the two periods:

VALUE OF PERSONAL PROPERTY BELONGING TO ESTATES PROBATED IN BALTIMORE CITY DURING TWELVE YEARS.

Estates having personal property valued—	1875 to 1880, inclusive.		1888 to 1893, inclusive.	
	Number.	Value.	Number.	Value.
Under $500	854	$201,902	1,359	$333,225
$500 to $1,000	501	361,407	958	656,038
$1,000 to $2,500	805	1,287,083	1,358	2,165,694
$2,500 to $5,000	433	1,526,467	792	2,776,823
$5,000 to $10,000	341	2,329,146	578	4,009,751
$10,000 to $25,000	317	4,981,125	452	7,123,912
$25,000 to $50,000	127	4,475,415	199	6,996,063
$50,000 to $100,000	56	3,890,194	129	9,157,922
Over $100,000	64	21,038,650	89	25,836 140
Total	3,498	40,091,389	5,914	59,055,568

...ch greatly reduced within the
cases amounting to 50 per cent." The ac
quoted for different classes of employees i

THE UNEMPLOYED.—The results of the
ber of the unemployed in Baltimore City du
depression are given in detail for the princi
mate places the whole number of the une
the winter of 1893–94 at 33,900, or more tha
people. A part of this report is devoted to
ernment aid," in which the methods prevai
European countries of rendering assistanc
discussed.

STRIKES.—The report states that the coal min
in May and June, 1894, lasting twenty-seven w
from 3,500 to 3,700 miners, was the only labor
during the year that involved the complete sus
This was the third big strike in Maryland du
years. A detailed history is given of this a
troubles that have occurred since the publi
report.

NEW HAMPSHIRE

The Second Annual Report of the Bureau of
is for the year 1894. The introduction, consi
the objects and presents some of the princip
investigations; also makes a number of recom
legislation to increase the efficiency of the bure
are as follows: Labor movement and labor
financial statistics, by towns, cities, and co
tistics, 117 pages; wa

FINANCIAL STATISTICS BY TOWNS, CITIES, AND COUNTIES.—These statistics are presented in twenty-four tables, which show for towns, cities, and counties the assessed valuation, taxes committed for collection for the year ending March 31, 1894, receipts, amount paid for salaries of school-teachers and other school expenses, for highways, for pauper aid, and miscellaneous expenses, indebtedness, surplus, and cash in treasury, compiled from the latest obtainable data. The indebtedness, the surplus where there is no indebtedness, and cash in treasury are computed for the year ending February 15, 1894.

TOWN STATISTICS.—The information given under this title consists of a brief statement for each town and city in the State as to its location; principal (nearest, if not in town) railroad stations; line of railroad on which located; banking town; population; number of ratable polls; assessed valuation of land and buildings, mills and machinery, stock in trade, money on hand, at interest or on deposit, stock in banks or corporations in State; valuation of assessed live stock, and various other facts of general interest.

WAGE EARNERS' STATISTICS.—These statistics are the leading feature of the work of the bureau for the year 1894. The data were secured by correspondence, returns being received from 711 individual workmen, representing over thirty branches of industry. The information for the individual reports is grouped by industries, and the totals for each industry are brought forward in summary form. There are numerous facts presented in the individual reports concerning the nativity of the wage-earner, parent nativity, conjugal condition, number in family, number of children attending school, number dependent in family, age at beginning work, time worked in present occupation and for present employer, hours employed per week, days and weeks unemployed, cause of nonemployment, weekly and yearly wages, increase or decrease in wages, times of payment, wages withheld, income other than wages, total yearly income, expenses of single and of married men, living expenses, savings, value of property, number owning homes, number belonging to societies, and amount of dues and of benefits.

Of the 711 workingmen who made reports 84+ per cent were born in America and 15+ per cent in foreign countries. The parents of 72+ per cent of the number were American born, the percentage being the same for both father and mother. The conjugal condition showed 72+ per cent married, 25+ per cent unmarried, and 2+ per cent widowed. Of the married persons 65+ per cent reported children in the family and 34+ percent no children. One hundred and thirty-nine families reported one child each. In the various occupations in which the wage-earners were engaged, 358 have worked from one to ten years each, and 179 from ten to twenty years each. The number of hours worked weekly varied from thirty-six to ninety-eight, according to occupation, clerks working by far the greatest number, they averaging 70+ hours. Of the total number, 64+ per cent were unemployed from three days to nearly the

yearly earnings and expenses are reporte
earners, or 42+ per cent, reported earning
living expenses; 283, or 39+ per cent, repor
made no report on the subject. Thirty-th
reporting upon the subject of home owner
not, and 48 made no report. The tendency
tions for the purpose of obtaining care and
ness and insurance for the family in ca
universal. Four hundred and fifty-five, or
belonging to from one to six societies each.

The opinions of a number of workingmen
organizations, and other kindred subjects
analysis of wage-earners' statistics.

TEMPORARY AID TO UNEMPLOYED.—Duri
sion of 1893–94 there was very little suffering i
of employment, and in but a very few places w
to either provide work for the unemployed .o
unfortunate poor. In order to ascertain to wh
cities of the State had been called upon to gi
winter of 1893–94, over and above the amour
the bureau, by circular letter, requested the s
to furnish such information.

The estimated number of persons, as report
work and unable to obtain employment in the
or a part of the winter of 1893–94, was 2,580;
part dependent upon charity for support, 1,58
temporary aid at public expense, 1,782; and th
rary aid over and above the previous year
closes with the statement

STRIKES AND LOCKOUTS.—This subject is introduced with a brief historical statement concerning strikes in America. The strikes that have occurred in the State, with the exception of those in the period from 1887 to 1893, to be covered by the report of the United States Department of Labor, are treated in detail, beginning with the first in 1838, which occurred at Dover and was participated in by factory girls who struck against a proposed reduction in wages.

STATISTICS OF MANUFACTURES.—The statistics of manufactures in New Hampshire, as published by the Eleventh Census of the United States, are reproduced. The bureau secured, by correspondence, reports from 299 manufacturing establishments in the State concerning their operations during the year 1893, and covering nearly the entire range of industry. These statistics are presented by industries, and comparisons are made between them and the statistics for the previous year for 166 identical establishments.

The 299 establishments reported as invested capital, $18,069,648; cost of material, $11,838,802; wages paid, $5,777,161; value of product, $21,151,826; total number of employees, 16,959, of whom 11,507 were males and 5,452 females. Compared with the United States Census of 1890 these totals represent 22+ per cent of the entire capital invested in the manufactures of the State, 24+ per cent of the value of product and material used, 23 per cent of the total wages paid, and 26 per cent of the total employees.

Calculated on a basis of 308 days to the year, the average number of days of work per establishment for the 299 reporting was 269, or 87.33 per cent of full time, and the average proportion of business done was 72 per cent of the full capacity of the establishments.

A comparison of the returns for the 166 establishments reporting in both 1893 and 1894 shows a decrease in capital of 3.20 per cent, in cost of material 4.85 per cent, and in value of product 13.85 per cent. The total number of employees decreased 5.46 per cent, while the total wages decreased 9.87 per cent. The average yearly earnings per individual, without regard to sex or age, decreased from $341 to $325. The average number of days establishments were in operation decreased from 273 to 269, while the average proportion of business done decreased from 73.75 to 71.48 per cent.

INDUSTRIAL CHRONOLOGY.—A description is given of the additions and improvements to factories and shops, and a statement made of other matters pertaining to changes in industrial establishments in the different towns and cities of the State.

OHIO.

The Eighteenth Annual Report of the Bureau of Labor Statistics of the State of Ohio for the year 1894 treats of the following subjects: Ohio marine interests, 47 pages; "sweating" in Cincinnati, 12 pages; tenement houses in Cincinnati, 29 pages; child labor in Cincinnati, 7

uary 1, 1894, placed at 3,056 vessels, havi
1,160,371 tons. Of this fleet there were o
Ohio ports 475 vessels, with an aggregate c

The statistics presented show the numbe
vessels for each city or town of the State i
managed. In 1890 the combined receipts
ports of any importance reached a total o
share of this traffic was 12,016,898 tons, or
and shipments of different commodities are sh
cities of the State, and the statistics of comm
Falls Canal, Michigan, for the seasons of 189
detail.

During the year 1893 there were 10 vessels
in the yards of the State that had an aggregat

The fishing industry of Ohio is described an
given which shows the average daily and year
of days worked during the year, for the differ
engaged in the industry. Reports from abo
Ohio fisheries show the capital invested to be
and giving employment to 587 men.

Freight rates on Lake Superior traffic, in
largely engaged, are given for different commo
1887 to 1893. The average rate for all classes
out of Lake Superior in 1893 was 1.1 mills per

The passenger traffic of the Great Lakes is to
tion is also given of the ports of Ohio, which
ment of the interest

found to be in tenement houses, while a much larger proportion were in shops contained in dwelling houses, but separate from the living rooms and usually affording fair sanitary conditions. But unfortunately shops of the latter class, although still numbering nearly one-half of the total number in Cincinnati, are fast passing away, owing to the competition of Russian Jews and Italians in the city tenements, and in still larger degree of suburban and country workers. These home workers receive their work from the hands of the large manufacturers and not from smaller shops contracting with manufacturers, thus strikingly differentiating the system in Cincinnati from that of most other large cities. The home manufacture of ready-made clothing in Cincinnati has passed largely out of the province of the regular trade, and has come almost entirely into the hands of those who look upon the work as a means of gaining "pin money." Some of the results shown in the tables presented are as follows:

SWEAT SHOPS IN CINCINNATI.

Garments made.	Places visited.	Shops in—			Average—					
		Tenement living rooms.	Homes, but apart from living rooms.	Buildings separate from homes.	Price per piece.	Reduction in price during year (per cent).	Weekly earnings of sweat-er's family.	Persons in sweat-er's family.	Rooms occupied.	Monthly rent.
Cloaks	16	10	3	3	$0.57¼	46.25	$9.39	6.00	2.70	$9.40
Coats	93	20	57	16	.51	32.23	11.93	5.00	3.87	*a* 15.42
Overcoats (*b*)	18	.....	.....	.....	.94	31.00	.....	.....	.....	.....
Vests	46	20	23	3	.21½	20.58	11.22	3.32	2.50	12.62
Pants	32	13	13	6	.23½	31.00	8.17	4.52	3.05	11.42
Pants (finishers) (*c*)	12	4	1	.....	.05½	12.00	7.67	2.73	2.00	5.50
Boys' suits	4	4	.....	.....	.37	20.00	10.00	2.00	2.25	7.16
Buttonholes	4	.....	2	2	*d* .62½	42.00	9.25	4.25	2.20	12.37
Custom coats	9	5	3	1	4.66	32.00	16.33	3.29	2.43	10.13

a In 27 instances the rent from which this average is made includes rent of shop, and this is generally equal to or greater than rent of living rooms, which varies from $10 to $27 a month.
b Overcoats are made in same shops as other coats, and the 18 places averaged are included in the 93 coat shops visited. They are given separately only to show difference in price.
c Only 5 places in which pants finishers were found were engaged exclusively in finishing; the remaining 7 are included in the returns of pants-making shops and represent those in which the work was so subdivided.
d Price per 100.

TENEMENT HOUSES IN CINCINNATI.—This investigation was limited to that part of the tenement-house population engaged in the trades or in factories or at common day labor, the canvass being confined to one representative ward of the city. The statistics gathered by the agents of the bureau are shown in detail for each return and cover the social and sanitary conditions and earnings of those reporting. Of the total number of fathers of families reported 165, or 22 per cent, and of mothers, 206, or 29 per cent, were Americans; 498, or 65 per cent, of the fathers and 442, or 61 per cent, of the mothers, native Germans; the remaining 96, or 13 per cent, of the fathers and 75, or 10 per cent, of the mothers being natives of other foreign countries. The 948 families reported *occupied 2,160* rooms; the average monthly

...placed by child labor during
Of the 946 children only 29 were orphans; 1
and 39 invalid fathers. From this invest
labor in Cincinnati is more of a custom th

The statistics are presented in two table
each of the 15 industries the number of e
employed, number of males and females, r
of age, hours employed and earnings per w
machinery, number of adults displaced, an
The second table contains figures that tend
parents to support their families independ
children.

CONVICT LABOR—SPECIAL REPORT.—Th
complaints that the provisions of the law to
of the inmates of the penitentiaries, reformat
the State of Ohio, enacted April 16, 1892, an
were being violated, an investigation was insti
extent the industries in the penitentiaries
industries of the same kind employing free
provisions of the law the number of perso
tentiaries and workhouses should not exceed
of persons manufacturing the same kind of g
of the penitentiaries and workhouses. Jan
the date of investigation. The statistics sho
tries conducted in the penitentiaries and wor
by the law, the number of convicts emplo
employed; free labor; the number (10 per c
law; the number actu

MANUFACTURING.—The presentation under this title consists entirely of statistical tables, which cover numerous occupations and all branches of manufacturing industry in the State. The industries and occupations are grouped by specified cities, cities not specified, and villages, the totals in some instances being summarized for the entire State.

The first group of tables shows for males and females, respectively, the number employed, number of days worked during the years 1892 and 1893, hours of daily labor, average daily wages, yearly earnings for 1893, and per cent of increase or decrease in wages for the year ending December 31, 1893. The second and third groups of tables show, for 1892 and 1893, the number of establishments reported, and the number of males and females, respectively, employed during each month of the year for the different industries. The fourth group of tables shows the number of establishments reported, total amount paid in wages during 1892 and 1893, number and monthly salaries of the different classes of office help, and total capital invested. The fifth group of tables shows the number of establishments reported, value of goods made and materials used, respectively, from January 1, 1893, to January 1, 1894; value of manufactured articles and materials, respectively, on hand January 1, 1893, and January 1, 1894, and the amount of capital invested.

The statistics form a complete exposition of the manufacturing industries of the State, especially of wages in all classes of occupations in the different industries and localities.

EMPLOYMENT OFFICES.—The introductory paragraph to this subject opens with the statement: "In 1894 the five free public employment offices of the State found work for nearly 10,000 people. Although this is a falling off of 3,000, compared with 1893, the showing is a very satisfactory one when it is remembered that the dullness in all lines of industry has been more widespread this year than last." The statistical tables show by weeks, for each office, the number of situations wanted and positions secured for males and females, respectively. The totals for the five offices of the State during 1894 are as follows:

POSITIONS SECURED THROUGH EMPLOYMENT OFFICES, 1894.

City.	Help wanted.		Situations wanted.		Positions secured.	
	Males.	Females.	Males.	Females.	Males.	Females.
Cincinnati	297	1,387	2,778	3,162	267	1,144
Cleveland	283	2,065	2,942	3,517	273	1,846
Columbus	605	1,852	2,672	2,226	456	1,343
Toledo	441	1,693	2,472	1,950	367	1,359
Dayton	800	2,447	3,657	3,761	777	1,934
Total	2,426	9,444	14,521	14,616	2,140	7,626

...ard of Trade, on the subject of trade unions, cove
valuable and exhaustive information relative to th
tions in Great Britain and Ireland for the year 189
extent of the information supplied by this report
lows:

The trade unions of the kingdom may, broadly spe
in two aspects. They are, in the first place, organi
chief object the protection of the industrial interests
and, in the second place, many of them are providen
ing for the support of their members in cases of sic
other contingencies incidental to the life of workmen.
aspect they are viewed, they form a most important fe
life of the kingdom, and it is, therefore, eminently desi
should be made of both classes of their operations.
report, therefore, information is given with regard to a
of interest in connection with both the trade and prov
these unions.

The report deals alike with registered and nonregis
distinguishes the one from the other, and detailed info
ing them is given in the appendices, of which there a
277 of the 284 pages of the report.

The first appendix, covering 109 pages, consists of
in detail, the number and names of trade unions, the nu
of such unions, the number and percentage of memb
tain benefits provided by each union during 1893, the
on hand at the end of 1892, the amount and analysis o
and expenditure, and the amount of funds on hand at
The information is given for each union separat

tistics in relation to disablement and mortality among members of trade unions.

In order that the position of the unions may, to some extent, be presented from their own point of view, extracts have been made from the general addresses of the chief officers of some of the principal unions to their members, through their annual or periodical reports, relative to their operations and progress, financial and otherwise. These extracts constitute the fifth appendix, which closes the report.

For the purposes of this report returns were obtained from 687 trade unions. Of these, 513 were registered under the trade union act, and 174 were not so registered—an increase of 31 registered and 57 unregistered societies as compared with the number reporting in 1892. Ninety-seven of the unions concerning which information is published had local sections or branches to the number of 6,879, at the end of 1893.

In addition to the unions from which returns were secured, the Labor Department had knowledge of the existence of 118 other unregistered unions at the end of 1893, concerning which no information was obtainable beyond the fact that their total membership amounted to 90,660; there were also 41 other such unions of which information concerning the membership could not be secured.

The following summary shows the total number of members, amount of annual income and expenditure, and balance of funds of all unions for which accounts for 1893 were obtained:

Number of unions for which accounts were received	687
Number of members of 677 unions at the end of 1893	1,270,789
Total funds of 662 unions in hand at beginning of 1893	$9,258,015
Total income of 687 unions for the year	9,718,259
Total expenditures of 687 unions for the year	10,932,665
Total funds of 683 unions at end of 1893	8,044,655

The discrepancy of $1,046 in the above summary is explained by the statement that two unions, which did not report the amount of their funds at the beginning and end of the year, had an excess of expenditures over income to that amount.

Detailed particulars as to the chief items of expenditure were furnished by 682 unions, and are shown in the following statement:

EXPENDITURES, ETC., OF 682 TRADE UNIONS, 1893.

Items.	Amounts.	Unions.	Members.
Out-of-work benefits	$2,496,169	378	827,840
Dispute benefit	3,567,364	331	1,083,904
Sick benefit	1,161,823	228	622,908
Accident benefit	126,889	99	414,989
Superannuation benefit	571,030	89	458,678
Funeral benefit	458,385	387	983,834
Other benefits, grants, etc	555,570	391	842,202
Grants to other trade unions	299,927	405	996,618
Working and other expenses	1,690,919	679	1,269,070
Total	10,928,076	.....	.....

The discrepancy *between the total* number of unions making the *different expenditures, as shown in the* preceding statement, and the

the following table:

MEMBERSHIP AND FINANCIAL OPERATIONS OF 534 TRADE

Items.	1892.	
Total membership at end of year	1,195,932	
Total annual income	$8,511,990	
Total annual expenditure	8,375,164	
Total funds at end of year	8,859,142	a

a The figures given here do not quite balance. There is a discrepancy o the fact that 24 unions showed $40,567 less funds at the beginning of 1893 end of the previous year, while 44 unions showed $19,101 more.

In regard to the falling off in membership shown table, it is said:

Many of the societies represented have, of course, l their number of members during the year, but the ab the net change in the total membership of all the unio of trade unions most affected by this diminution in ag are those which represent the less skilled branches of in those which suffered most heavily from this falling a were the unions of unskilled labor. Fourteen unions in transport and other branches of such labor sho 37,000 on the year. In the mining and quarrying grou of the unions show a loss of 8,000 members.

Notwithstanding the loss in membership there wa ncrease, amounting to $721,220, in the total income This is explained by the fact that in the class of unic ss of members is chiefly due the contributions of n west, while in the organizations of skilled labor, in w tions are highest, there has been an increase of me so to be noted that in many

expenditure per member of the unions reporting was $5.38, while in 1893 it had risen to $8.97. The funds on hand at the end of the year 1893 amounted to $6.47 per member.

The powers of trade unions as to the investment or deposit of their funds vary considerably, some having almost unlimited discretion, while others are strictly confined to investments of an absolutely safe character. The bulk of these accumulated funds is deposited in Government savings banks, or invested in Government stock, but some of the funds are invested in joint stock companies, municipal stock, or real estate. A sufficient amount, available for immediate use, is kept in the hands of the union officials.

The details of expenditures for different purposes by the 534 trade unions reporting the facts for 1892 and 1893 are shown in the following table, in which are also shown the number and membership of the unions making expenditures for each purpose in each year:

EXPENDITURES, ETC., OF 534 TRADE UNIONS, 1892 AND 1893.

Items.	1892.			1893.			Increase (+) or decrease (—) in expenditures.
	Unions.	Members.	Expenditures.	Unions.	Members.	Expenditures.	
Out-of-work benefits	271	728,030	$1,872,576	300	754,683	$2,409,141	+ $536,565
Dispute benefit	280	1,070,788	2,178,898	271	1,010,649	3,426,727	+ 1,247,829
Sick benefit	180	579,608	1,043,655	190	604,920	1,147,511	+ 103,856
Accident benefit	80	348,395	86,716	76	382,216	124,962	+ 38,246
Superannuation benefit	72	428,914	515,727	80	454,398	567,507	+ 51,780
Funeral benefit	300	887,326	403,574	312	908,496	440,958	+ 37,384
Other benefits, grants, etc	387	1,081,338	633,550	430	1,053,666	798,870	+ 165,320
Working and other expenses	527	1,190,928	1,626,009	530	1,166,444	1,578,376	— 47,633
Total	.....	.....	a8,360,705	.....	.....	a10,494,052	.....

a The difference between this total of expenditure and that given in the preceding summary is due to some of the unions not reporting the details of their expenditures.

The above table deals with the returns of 534 unions which furnished information as to certain details of their expenditures in either 1892 or 1893. As the same number of unions did not, in any instance, make expenditures for the same purpose in both years the table contains an element of uncertainty. In order to secure a proper basis of comparison the subjoined table is given, which shows for each of the items of expenditure the facts for only such unions or societies as made an expenditure for that purpose in both 1892 and 1893.

EXPENDITURES, ETC., OF TRADE UNIONS REPORTING FOR BOTH 1892 AND 1893.

Items.	Unions.	Members.		Expenditures.		Increase.
		1892.	1893.	1892.	1893.	
Out-of-work benefits	249	700,880	706,380	$1,815,380	$2,359,484	$544,104
Disputes benefit	213	1,007,017	972,446	2,059,381	3,268,487	1,209,106
Sick benefit	167	551,333	557,677	1,033,148	1,138,527	105,379
Accident benefit	63	327,687	331,521	80,852	120,908	40,056
Superannuation benefit	68	425,600	439,307	514,968	564,027	49,059
Funeral benefit	268	880,885	875,297	400,946	429,746	28,800
Other benefits, grants, etc	351	995,126	987,588	620,581	768,951	148,370
Total	.....	.....	.....	6,525,256	8,650,130	2,124,874

Trade. The report consists of three parts,
of—changes in rates of wages and hours of
occurred during 1893, also some preliminary fig
for 1894; standard piece rates; standard time

CHANGES IN RATES OF WAGES AND HOURS
of the report is to put on record the principal cl
reported in market rates of wages and recogn
various districts in the chief industries of the U
the year to which the report refers.

The data were obtained principally from the
wages and hours of labor published monthly i
The material was originally secured from news
were in all cases verified); reports from local corre
of employers' and workmen's associations, and ot
distributed for that purpose; superintendents of n
miscellaneous sources. The information thus sec
a careful revision prior to publication in the Gazett
from the Labor Gazette were supplemented as
concerning changes not reported at the time they
from the annual reports of trade unions, especiall
standard rates of wages. The changes reported
grouped by industries, and printed slips containing
in each industry were distributed for corrections
secretaries of the trade unions and of the variou
tions concerned with those trades, and also to the
of the department. In certain trades in which
reported during the year special

servants. Agriculture, however, and railway service were very imperfectly covered, and though all the changes in predominant rates for seamen at the principal ports have been recorded, the peculiar conditions of that industry make it impossible to compute the number affected by changes in rates of wages.

If the industries above mentioned be excluded, the groups of industries in which actual changes have been reported cover a total of nearly 7,000,000 persons of all classes and include all the important fluctuating trades.

For the purpose of this report a change in the rate of wages is defined as a change in the weekly or hourly rate of remuneration of a certain class of work people, apart from any change in the nature of the work performed.

The following classes of changes, which are apt to be confused with changes in the rates of wages, are excluded from the report:

1. Changes in the average earnings in a trade which are due, not to an alteration in the scales of pay for particular classes of work, but to alterations in the proportions which the higher and lower paid classes of work people bear to each other.

2. Changes in the rates of pay for individuals due to promotions, or progressive "increments" of wages. In some classes of undertakings (for example, the police force) the rates of pay of various classes of employees are regulated by scales. The rates of pay, therefore, of individuals may be continually altering. Such internal changes, however, are not to be regarded as real changes in the rates of wages so long as the limits of the scales for each class of employees remain unaltered for work of the same kind.

3. Purely "seasonal" changes in weekly wages which regularly occur at certain periods of the year in certain trades. This change as a rule is accompanied by a change of hours of labor for the summer and winter months, respectively, and merely represents the effect on weekly wages of this change of hours, the hourly rate of pay remaining the same.

4. Changes in the terms of employment which merely provide for extra compensation for extra work.

Exclusive of changes affecting seamen and agricultural laborers, there were 836 cases of changes of wages reported for 1893, and in 706 cases full particulars were obtained. Of the total number of changes 457 were increases and 249 decreases. There were 549,977 individuals affected directly by the 706 changes for which full particulars were secured, but of this number 151,140 finished the year with their wages at the same level as at the beginning, and for the purpose of comparing wages at the end of 1892 and 1893 may be regarded as having their wages unchanged. Of the remaining 398,837 employees, 142,364, or 26 per cent of the whole number affected, gained a net increase of wages, and 256,473, or 47 *per cent of* the whole number, sustained a net loss. *Judged, therefore, by the* standard of the number of per-

sons affected, the decreases of wages during the year preponderated over the increases. Nevertheless the net result of all the changes during the year was a slight rise of wages, the average amount of the increases per head being so much greater than that of the decreases as to overbalance the superiority of numbers.

In presenting the statistics the various subdivisions of industry are arranged in seven general groups, the totals being given for each group and each subdivision. The details for each change in wages and hours of labor are also given, the reports being arranged by localities and industries. In the following summaries only the totals for the general groups are presented and those cases considered for which full particulars were secured.

In many cases the same individual was involved in more than one change during the year, and to obtain the aggregate number of employees affected should be counted more than once. The two statements immediately following show the number of changes (increases or decreases in weekly wages) during the year, the number of individual employees affected, and the total and average increase or decrease:

NUMBER OF INCREASES OR DECREASES IN WEEKLY WAGES, AND EMPLOYEES AFFECTED, 1893.

Industries.	Changes.			Employees affected.			
	Increases.	Decreases.	Total.	Wages increased.	Wages decreased.	Wages same at end as at beginning of year.	Total.
Building	265	22	287	40,017	4,521	.....	44,[illegible]
Metal, engineering, and shipbuilding	35	111	146	5,377	95,279	*a* 20,600	121,[illegible]
Mining and quarrying	40	40	80	75,834	103,802	*a* 130,290	309,[illegible]
Textiles	28	4	32	4,196	50,891	.....	55,[illegible]
Clothing	18	.....	18	3,599	.....	.....	3,[illegible]
Other trades and occupations	43	18	61	3,210	1,944	*a* 250	5,[illegible]
Employees of public authorities	79	3	82	10,131	36	.....	10,[illegible]
Total	508	198	706	142,364	256,473	*a* 151,140	549,[illegible]

a These employees are included in obtaining the average net increase or decrease.

AMOUNT OF INCREASE OR DECREASE IN WEEKLY WAGES, 1893.

Industries.	Increase.				Decrease.			
	Total.	Average per employee.	Net.		Total.	Average per employee.	Net.	
			Total.	Average per employee.			Total.	Average per employee.
Building	$20,200.35½	$0.50½	$18,925.82	$0.42½	$1,274.53½	$0.28	.....	.....
Metal, engineering, and shipbuilding	1,092.83½	.37	.....	.....	28,593.85	.30	$26,601.01½	[illegible]
Mining and quarrying	86,388.89	1.14	70,546.24½	.23	15,842.64½	.15½	.....	.....
Textiles	848.96	.20	.....	.....	5,540.51	.11	4,691.55	[illegible]
Clothing	1,388.65½	.38½	1,388.65½	.38½	.....	.....	.....	.....
Other trades and occupations	1,251.42	.39	.....	.....	1,367.00	.70½	115.58	[illegible]
Employees of public authorities	3,885.90	.38½	3,871.05½	.38	14.84½	.41	.....	.....
Total	115,957.01½	.81½	63,323.03	.11½	52,633.98½	.20½	.....	.....

The computed net effect upon wages of the total changes of the year, so far as reported in detail, was a rise of $63,323.63 a week. By this statement is meant that the total wages bill of the country, in industries covered by the returns, for a full week's work at the end of 1893 would exceed that for the corresponding week at the end of 1892 by $63,323.63. For the purposes of the calculation internal changes during the year are disregarded, and the state of the weekly wages bill is compared at the end of each year. In other words, the comparison deals with the rates of payment at two given points of time; not with the total payments over two given periods of time.

The average weekly rise of wages per head calculated on the total number of persons receiving a rise was 81½ cents, while the average weekly fall per head calculated in a similar way was only 20½ cents. The average net weekly change per head calculated on the total number of persons affected by changes of wages during the year was a rise of 11½ cents. If the net gain be spread over the total estimated number of persons engaged in the trades to which the returns relate, the rise is 47½ cents per head per annum. The number of employees affected by changes in wages formed about 8 per cent of the total number of persons employed in the industries covered.

The sum of the increases, $115,957.01½, shown in the above statement is itself the balance of much larger amounts of increases and decreases affecting the same individuals, and the same is true of the sum of the decreases, as all internal changes during the year were excluded. The amount of the total weekly increases recorded was $292,854.78, and of the total decreases $229,531.15, the difference between which is of course the same as that between the increases and decreases shown in the above table.

The total number of employees (not necessarily separate individuals) affected by the 706 changes for which full particulars were reported, and the total and average of the aggregate increases and decreases per week, are shown in the two following statements:

EMPLOYEES AFFECTED BY CHANGES IN WEEKLY WAGES, 1893.

[A single employee may be affected by more than one change, and hence counted two or more times in this table.]

Industries.	Increases.	Decreases.	Total.	Average number to each change.		
				Increases.	Decreases.	Total.
Building	40,217	5,071	45,288	152	231	158
Metal, engineering, and shipbuilding	30,827	159,458	190,285	881	1,437	1,303
Mining and quarrying	562,524	549,844	1,112,368	14,063	13,746	13,905
Textiles	4,246	50,891	55,137	152	12,723	1,723
Clothing	3,599	.....	3,599	200	.....	200
Other trades and occupations	3,460	2,194	5,654	80	122	93
Employees of public authorities	10,141	36	10,177	128	12	124
Total	655,014	767,494	1,422,508	1,289	3,876	2,015

[illegible]	[illegible]	[illegible]
Metal, engineering, and shipbuilding	5,460.70	32,061.7[illegible]
Mining and quarrying	259,697.12½	189,150.8[illegible]
Textiles	848.96	5,540.5[illegible]
Clothing	1,388.65½	.....
Other trades and occupations	1,373.08½	1,488.6[illegible]
Employees of public authorities	3,885.96	14.84
Total	292,854.78	229,531.15

There were 164 changes in hours of labor re[illegible] during 1893, of which one-half (82) occurre[illegible] Full particulars were secured concerning 155 [illegible] 139 were decreases and 16 increases. The to[illegible] affected by the 155 changes was 34,649, of whe[illegible] and 33,119 a decrease in their hours of labor. [illegible] show the number and the extent of changes i[illegible] which full particulars were reported, also th[illegible] affected for the different groups of industry:

NUMBER OF CHANGES IN HOURS OF LABOR PER W[illegible] AFFECTED, 1893.

Industries.	Changes.		
	Increases.	Decreases.	Tota[illegible]
Building	11	63	[illegible]
Metal, engineering, and shipbuilding	1	9	[illegible]
Mining and quarrying	.....	1	
Textiles	.....	6	
Clothing	.....	7	
Other trades and occupations	.....	30	[illegible]
Employees of public authorities	4	23	[illegible]
Total	16	139	1[illegible]

EMPLOYEES AFFECTED BY CHANGES IN AVERAGE HO[illegible] 1893.

The net effect of the changes in each industry as well as that of the whole of the changes reported was a reduction of hours of labor. Attention is called to the fact that in the mining industry, which was more disturbed by wage changes than any other group of industries, and in which proposals had been made for some time past to obtain a reduction of hours by legislative means, not a single change in weekly hours of labor was reported. The one change shown for the group occurred in the quarries.

In order to compute the average effect of the changes, they have been grouped according to the average amount of the increase or decrease per week taken over the whole year. In the case of the building trades, in which the summer and winter weekly hours differ considerably, many of the changes reported affect only summer hours, or only winter hours, or do not affect summer and winter hours to the same extent. In all cases, therefore, the average effect of the change spread over the entire year has been computed for the purpose of the present calculation, due regard being paid to the number of weeks in the year in which the summer and winter rates prevail, respectively.

The net effect of the whole of the changes of hours reported was equivalent to an average reduction of two hours per week for the whole number of persons affected by the changes. The following statement classifies the total number of employees affected by changes of hours, according to the magnitude of the increase or decrease:

EMPLOYEES AFFECTED, CLASSIFIED BY EXTENT OF CHANGE IN HOURS OF LABOR.

Change in hours per week.	Employees affected.		
	Increase.	Decrease.	Total.
Under 2 hours	1,283	15,338	16,621
2 and under 4	247	15,058	15,305
4 and under 6		1,491	1,491
6 and under 8		1,011	1,011
8 and over		221	221
Total	1,530	33,119	34,649

The effect of these changes on the average weekly hours of labor of the entire body of persons engaged in the groups of industries included in the returns was, of course, inappreciable.

The average number of persons affected by a change of hours was 224. In the building trades it was 179, in the printing and paper trades (which are included in the class of other trades and occupations) 350, in the textiles 337, in the clothing 1,120.

The preliminary figures given for 1894 are considered as too incomplete to be used for comparison with 1893, and should only be accepted as indicating the general tendency of wages for that year. The number of changes in wages reported for 1894 is 589, of which 411 were increases and 178 decreases. The total number of individual employees affected by the changes for which full particulars were received was

the remaining industries show an increase. If increases be balanced against decre appears to have taken place in the cotton, boot and s industries, while in the engineering, shipbuilding, groups wages remained throughout 1894 practically the end of 1893.

The aggregate number of employees (not necessari viduals) involved in the wage changes, so far as repor 1,070,000, of whom 281,000 were involved in increases decreases. A considerable part of this aggregate is a the Welsh miners, whose rates of wages changed n times during the year, and who consequently figured s total.

Reports have been received of 215 reductions of ho 1894, affecting 70,000 individuals, of whom about 42,00 ment employees. The net effect of the changes in hour decrease, as in 1893.

STANDARD PIECE RATES AND STANDARD TIME portion of the report presents selections from some of t tant lists of piece and time rates of wages in force in The lists shown are those prepared by various organiz employers or employees, or as agreed upon by both cla zations in the different trades, the object being to working of the standard lists of wages by which many governed. In some cases lists prepared by employers respectively, are placed in comparison, and, when practi also given for 1892.

It is not practicable to make a summary of the diff he lack of space will not permit of a reproduction

STRIKES IN SWITZERLAND IN RECENT YEARS.

The eighth annual report of the Comité Directeur de la Fédération Ouvrière Suisse, 1894, contains a historical review of strikes, lockouts, and employees' demands, followed by statistical summaries, covering the period of 1860 to 1894, inclusive.

The information, as explained by the editor, has been obtained largely from labor journals and other publications, but unfortunately the files of some of the most important periodicals were incomplete and other important journals could not be obtained, especially for the earlier periods. Frequently the information found was very meager, and in such cases the missing data were sought by correspondence. But this means of obtaining information was only partly successful. While thus there are many gaps in the statistics presented, they are sufficiently complete to furnish some idea of this feature of the labor movement in Switzerland. The following table shows the number of strikes, lockouts, and demands amicably settled, and their results:

STRIKES, LOCKOUTS, AND DEMANDS, BY RESULTS, 1860 TO 1894.

Year.	Demands not resulting in strikes.					Strikes.					Lockouts.				
	Succeeded.	Succeeded partly.	Failed.	Not reported.	Total.	Succeeded.	Succeeded partly.	Failed.	Not reported.	Total.	Succeeded.	Succeeded partly.	Failed.	Not reported.	Total.
1860	.....	.....	.....	.....	.....	1	.....	1	.....	2	1	.....	.....	.....	1
1861	4	.....	.....	.....	4	.....	.....	1	.....	1	.....	.....	.....	.....	.....
1862	1	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1863	2	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1864	2	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1865	2	.....	.....	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1866	.....	.....	.....	.....	.....	1	.....	.....	4	5	.....	.....	.....	.....	.....
1867	.....	.....	1	.....	1	.....	.....	1	.....	1	.....	.....	.....	.....	.....
1868	.....	.....	.....	.....	.....	8	2	2	.....	12	.....	.....	1	.....	1
1869	10	.....	3	2	15	7	.....	3	.....	10	.....	.....	.....	1	1
1870	1	.....	.....	2	3	2	.....	3	2	7	.....	.....	.....	1	1
1871	2	.....	3	.....	5	3	1	2	1	7	.....	.....	1	.....	1
1872	7	.....	2	4	13	9	2	6	.....	17	.....	.....	1	.....	1
1873	4	2	.....	.....	6	2	6	5	1	14	.....	.....	.....	.....	.....
1874	1	.....	.....	2	3	3	.....	.....	4	7	.....	.....	.....	.....	.....
1875	1	.....	.....	.....	1	5	1	1	2	9	.....	.....	.....	.....	.....
1876	1	.....	.....	.....	1	2	1	4	.....	7	.....	.....	.....	.....	.....
1877	.....	.....	.....	.....	.....	.....	.....	3	.....	3	.....	.....	.....	.....	.....
1878	.....	.....	.....	.....	.....	2	1	.....	.....	3	.....	.....	.....	.....	.....
1879	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1880	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	1	2	1	4	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	2	.....	.....	1	3	.....	.....	.....	.....	.....
1884	.....	.....	.....	.....	.....	1	.....	.....	1	2	.....	.....	.....	.....	.....
1885	1	.....	.....	.....	1	11	.....	2	4	17	.....	.....	.....	.....	.....
1886	8	.....	1	2	11	6	.....	5	.....	11	.....	.....	.....	.....	.....
1887	1	1	.....	.....	2	13	.....	2	2	17	.....	.....	2	.....	2
1888	3	.....	2	.....	5	4	3	2	1	10	.....	.....	.....	.....	.....
1889	18	2	3	1	25	14	2	4	1	21	.....	.....	.....	.....	.....
1890	17	2	4	9	33	10	5	4	1	20	.....	.....	.....	.....	.....
1891	13	9	5	4	31	21	1	6	4	32	.....	.....	.....	1	1
1892	9	1	2	1	13	15	3	5	1	24	1	.....	.....	.....	1
1893	.....	2	4	1	7	11	1	3	2	17	.....	.....	.....	.....	.....
1894	5	4	6	.....	15	7	5	9	1	22	.....	.....	.....	.....	.....
Total	113	25	37	29	204	160	35	77	34	306	2	.....	5	3	10

disputes were combined in one column, and th
whose results were not reported are consolid
the latter grouping may not be entirely fair, it
tified on the ground that, in general, the r
announced in the labor journals had they been
reduction of hours are also included strikes a
shorter hours was one of several demands, bec
the most important of the demands made in su

STRIKES, LOCKOUTS, AND DEMANDS, BY CAU

[Under dismissals and lockouts the strikes, lockouts, and demands a
succeeded partly, or failed, according as the employees succeeded.

Year.	For reduction of hours.		For increase of wages.		For other improvements.		Against increase of hours.		Against reduction of wages.		Di lo
	Succeeded and succeeded partly.	Failed and not reported.	Succeeded and succeeded partly.	Failed and not reported.	Succeeded and succeeded partly.	Failed and not reported.	Succeeded and succeeded partly.	Failed and not reported.	Succeeded and succeeded partly.	Failed and not reported.	Su ce ed an su ce ed par ly
1860	-----	-----	-----	-----	-----	-----	-----	-----	1	1	---
1861	-----	-----	4	1	-----	-----	-----	-----	-----	-----	---
1862	-----	-----	1	1	-----	-----	-----	-----	-----	-----	---
1863	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	---
1864	-----	-----	2	-----	-----	-----	-----	-----	-----	-----	---
1865	-----	-----	1	-----	1	-----	-----	-----	-----	-----	---
1866	1	-----	-----	-----	-----	4	-----	-----	-----	-----	---
1867	-----	-----	-----	-----	-----	2	-----	-----	-----	-----	---
1868	8	-----	2	-----	-----	1	-----	-----	-----	1	
1869	4	2	11	6	2	-----	-----	-----	-----	-----	---
1870	1	2	1	5	-----	-----	-----	1	1	-----	---
1871	3	3	2	1	1	-----	-----	-----	-----	2	
1872	10	5	5	6	1	1	-----	-----	2	-----	
1873	7	3	7	3	-----	-----	-----	-----	-----		
1874	-----	5	3	-----	-----						

ollowing summary, taken by five-year periods, is interesting as ; the progress of the movement for shorter working days:

DS AND STRIKES FOR REDUCTION OF HOURS, BY FIVE-YEAR PERIODS, 1865 TO 1894.

rs.	Demands and strikes for—							
	11 hours per day.		10 hours per day.		9 hours per day.		Time not reported.	
	Succeeded and succeeded partly.	Failed and result not reported.	Succeeded and succeeded partly	Failed and result not reported.	Succeeded and succeeded partly.	Failed and result not reported.	Succeeded and succeeded partly.	Failed and result not reported.
.....	4	.....	9	2	.....	.....	.....	.....
.....	6	4	13	9	1	.....	1	5
.....	1	1	2	1	.....	.....	.....	.....
.....	1	.....	.....	.....	.....	.....	.....	.....
.....	3	1	23	3	.....	.....	1	2
.....	3	1	49	25	4	5	5	.....
al.....	18	7	96	40	5	5	7	7

next table shows the strikes, lockouts, and demands by occupa- or the period of thirty-five years from 1860 to 1894:

STRIKES, LOCKOUTS, AND DEMANDS, BY OCCUPATIONS, 1860–1894.

ccupation.	Demands not resulting in strikes.			Strikes.			Lockouts.		
	Succeeded and succeeded partly.	Failed.	Not reported.	Succeeded and succeeded partly.	Failed.	Not reported.	Succeeded and succeeded partly.	Failed.	Not reported.
.....	36	2	1	7	13	3	1	.....	.....
employees.....	2	2	1	2	3	.....	.....	.....	.....
ters	4	2	1	2	1	1	.....	.....	1
.....	5	5	2	8	2	2	1	.....	.....
.....	.....	.....	1	6	.....	1	.....	.....	.....
ers	1	1	.....	3	2	2	.....	.....	.....
nd stove makers .	1	2	2	2	.....	.....	.....	.....	.....
rs.....	2	.....	3	15	3	1	.....	.....	.....
.....	13	3	5	22	10	3	.....	1	.....
.....	.....	.....	.....	8	2	.....	.....	1	.....
.....	6	2	2	3	2	1	.....	.....	.....
akers.....	4	1	.....	21	1	2	.....	1	1
rs and watch case									
.....	.....	.....	.....	11	4	1	.....	.....	.....
.....	1	.....	.....	4	.....	2	.....	.....	.....
.....	10	.....	.....	22	4	1	.....	.....	.....
ers.....	11	2	.....	11	6	4	.....	.....	.....
thing trades.....	1	.....	.....	1	.....	1	.....	.....	.....
.....	.....	1	.....	2	2	1	.....	.....	.....
ts.....	1	6	2	3	2	.....	.....	.....	.....
ters	6	.....	.....	2	3	1	.....	.....	.....
s.....	6	2	.....	9	.....	1	1	.....	.....
ithe and wagon									
.....	6	2	1	9	3	.....	.....	.....	.....
es in weaving es-									
ments	5	3	2	9	7	3	.....	2	.....
ts.....	4	.....	.....	4	2	.....	.....	.....	.....
es in tobacco									
.....	2	.....	.....	3	3	.....	.....	.....	.....
.....	2	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	5	.....	1	.....	.....	.....
.....	3	.....	2	2	.....	.....	.....	.....	.....
neous	6	1	4	.....	2	1	.....	.....	.....
tal	138	37	20	196	77	33	3	5	2

) report calls attention to the fact that the statistics for the print- rade are the most complete, because the printers have long been

well organized, and have published a special trade journal. This t shows that while there were in all 39 demands that were amic settled, only 21 strikes and lockouts are reported. In the totals for other occupations the reverse condition is found, namely, 165 dem as against 295 strikes and lockouts. This result in the case of printers is probably due to their superior skill and better organiza

In order to better illustrate the effects of labor organization in r ence to disputes between employees and their employers, the follo summary is presented of the number of demands amicably settled, of offensive and defensive strikes—lockouts being classed with latter.

DEMANDS NOT FOLLOWED BY STRIKES AND STRIKES COMPARED.

Years.	Demands not followed by strikes.	Offensive strikes.	Defe stri
1860-1864	10	2	
1865-1869	19	24	
1870-1874	30	43	
1875-1879	2	11	
1880-1884	.....	2	
1885-1889	44	44	
1890-1894	90	63	

During the first five-year period nearly all the disputes affected the printers, which fact accounts for the great excess of demands strikes. In the two succeeding periods other occupations appear, b the number of offensive strikes is greatest. During the next two peri the industrial crisis reduced the number of labor disputes to a m mum. In the sixth period of the summary the influence of the org zation of the Swiss reserve fund (Caisse Suisse de Réserve) beca apparent. Notwithstanding the rapidly increasing number of l disputes, the number of demands amicably settled equals that of offensive strikes, while the number of defensive strikes is quite consi able. During the last period the number of demands amicably set considerably exceeds either that of the offensive or of the defen strikes. This result is due to the thorough organization of the fed tion of labor unions and to the activity of their executive committe

CONCERNING THE MONEY OF THE UNITED STATES AND OTHER COUNTRIES.

BY WILLIAM C. HUNT.

›llowing information relative to money has been compiled from ›rt of the Director of the Mint, and includes a brief statement ing the monetary system of the United States; the value of the the United States, together with the authority for coining and nount coined; the value of the pure silver in a United States ollar, as compared with the market price of silver; the commer- io of silver to gold since 1687; the total production of the pre- ›etals in the world since the discovery of America, and in the States since 1792; the values of foreign coins expressed in terms United States gold dollar, and the approximate stocks of money principal countries of the world at the present time.

widespread interest that is now being taken in information of ture affords ample justification for its reproduction in the Bulletin Department.

ETARY SYSTEM OF THE UNITED STATES.—In 1786 the Congress Confederation chose as the monetary unit of the United States llar of 375.64 grains of pure silver. This unit had its origin in anish piaster, or milled dollar, which constituted the basis of the le circulation of the English colonies in America. It was never , there being at that time no mint in the United States.

act of April 2, 1792, established the first monetary system of nited States. The bases of the system were: The gold dollar, ning 24.75 grains of pure gold, and stamped in pieces of $10, $5, and enominated, respectively, eagles, half eagles, and quarter eagles), he silver dollar, containing 371.25 grains of pure silver. A mint stablished. The coinage was unlimited and there was no mint e. The ratio of gold to silver in coinage was 1:15. Both gold ilver were legal tender. The standard was double.

e act of 1792 undervalued gold, which was therefore exported. ›ct of June 28, 1834, was passed to remedy this, by changing the ratio between the metals to 1:16.002. This latter act fixed the ht of the gold dollar at 25.8 grains, but lowered the fineness from ⅚ to 0.899225. The fine weight of the gold dollar was thus reduced .2 grains. The act of 1834 undervalued silver as that of 1792 had

undervalued gold, and silver was attracted to Europe by the more favorable ratio of 1:15½. The act of January 18, 1837, was passed to make the fineness of the gold and silver coins uniform. The legal weight of the gold dollar was fixed at 25.8 grains, and its fine weight at 23.22 grains. The fineness was, therefore, changed by this act to 0.900 and the ratio to 1:15.988+.

Silver continued to be exported. The act of February 21, 1853, reduced the weight of the silver coins of a denomination less than $1, which the acts of 1792, 1834, and 1837 had made exactly proportional to the weight of the silver dollar, and provided that they should be legal tender to the amount of only $5. Under the acts of 1792, 1834, and 1837 they had been full legal tender. By the act of 1853 the legal weight of the half dollar was reduced to 192 grains and that of the other fractions of the dollar in proportion. The coinage of the fractional parts of the dollar was reserved to the Government.

The act of February 12, 1873, provided that the unit of value of the United States should be the gold dollar of the standard weight of 25.8 grains, and that there should be coined besides the following gold coins: A quarter eagle, or 2½-dollar piece; a 3-dollar piece; a half eagle, or 5-dollar piece; an eagle, or 10-dollar piece, and a double eagle, or 20-dollar piece—all of a standard weight proportional to that of the dollar piece. These coins were made legal tender in all payments at their nominal value when not below the standard weight and limit of tolerance provided in the act for the single piece, and when reduced in weight they should be legal tender at a valuation in proportion to their actual weight. The silver coins provided for by the act were a trade dollar, a half dollar, or 50-cent piece, a quarter dollar, and a 10-cent piece; the weight of the trade dollar to be 420 grains Troy; the half dollar, 12½ grams; the quarter dollar and the dime, respectively, one-half and one-fifth of the weight of the half dollar. The silver coins were made legal tender at their nominal value for any amount not exceeding $5 in any one payment. The charge for converting standard gold bullion into coin was fixed at one-fifth of 1 per cent. Owners of silver bullion were allowed to deposit it at any mint of the United States to be formed into bars or into trade dollars, and no deposit of silver for other coinage was to be received.

Section II of the joint resolution of July 22, 1876, recited, that the trade dollar should not thereafter be legal tender, and that the Secretary of the Treasury should be authorized to limit the coinage of the same to an amount sufficient to meet the export demand for it. The act of March 3, 1887, retired the trade dollar and prohibited its coinage. That of September 26, 1890, discontinued the coinage of the 1-dollar and 3-dollar gold pieces.

The act of February 28, 1878, directed the coinage of silver dollars of the weight of 412½ grains Troy, of standard silver, as provided in the act of January 18, 1837, and that such coins, with all silver coins

heretofore coined, should be legal tender at their nominal value for all debts and dues, public and private, except where otherwise expressly stipulated in the contract.

The Secretary of the Treasury was authorized and directed by the first section of the act to purchase from time to time silver bullion at the market price thereof, not less than $2,000,000 worth nor more than $4,000,000 worth per month, and to cause the same to be coined monthly, as fast as purchased, into such dollars. A subsequent act, that of July 14, 1890, enacted that the Secretary of the Treasury should purchase silver bullion to the aggregate amount of 4,500,000 ounces, or so much thereof as might be offered, each month, at the market price thereof, not exceeding $1 for 371.25 grains of pure silver, and to issue in payment thereof Treasury notes of the United States, such notes to to be redeemable by the Government, on demand, in coin, and to be legal tender in payment of all debts, public and private, except where otherwise expressly stipulated in the contract. The act directed the Secretary of the Treasury to coin each month 2,000,000 ounces of the silver bullion purchased under the provisions of the act into standard silver dollars until the 1st day of July, 1891, and thereafter as much as might be necessary, to provide for the redemption of the Treasury notes issued under the act. The purchasing clause of the act of July 14, 1890, was repealed by the act of November 1, 1893.

The act of June 9, 1879, made the subsidiary silver coins of the United States legal tender to the amount of $10. The minor coins are legal tender to the amount of 25 cents.

Gold, Silver, and Minor Coins of the United States.—The following table shows the denominations of the gold, silver, and minor coins of the United States which have been authorized by Congress, giving the dates of the acts authorizing their coinage, their original weight and fineness (or composition in the case of the minor coins), changes in weight and fineness authorized by subsequent acts of Congress, the dates of the acts discontinuing their coinage in certain cases, and the total amount coined to June 30, 1895. In those cases where their coinage has been discontinued by act of Congress, the figures given in the last column of the table represent the total amount coined to the date of that act as given in the column immediately preceding. In the case of the Columbian half dollar and Columbian quarter dollar, the figures represent the total amount coined under the special act by which their coinage was authorized:

AUTHORITY FOR COINING, CHANGES IN WEIGHT AND FINENESS, AND AMOUNT COINED, FOR EACH COIN.

Denomination.	Act authorizing coinage or change in weight or fineness.	Weight (grains).	Fineness.	Act discontinuing coinage.	Total amount coined to June 30, 1895.
GOLD COINS.					
Double eagle ($20)	March 3, 1849	516	.900		$1,225,818,760.00
Eagle ($10)	April 2, 1792	270	.916⅔		262,380,780.00
	June 28, 1834	258	.899225		
	January 18, 1837		.900		
Half eagle ($5)	April 2, 1792	135	.916⅔		217,814,395.00
	June 28, 1834	129	.899225		
	January 18, 1837		.900		
Quarter eagle ($2.50)	April 2, 1792	67.5	.916⅔		28,681,115.00
	June 28, 1834	64.5	.899225		
	January 18, 1837		.900		
Three-dollar piece	February 21, 1853	77.4	.900	September 26, 1890	1,619,376.00
One dollar	March 3, 1849	25.8	.900	September 26, 1890	19,499,337.00
SILVER COINS.					
Dollar	April 2, 1792	416	.8924		a 431,320,457.00
	January 18, 1837	412½	.900	February 12, 1873	
	February 28, 1878				
Trade dollar (b)	February 12, 1873	420	.900	March 3, 1887	35,965,924.00
Half dollar	April 2, 1792	208	.8924		130,857,278.50
	January 18, 1837	206¼	.900		
	February 21, 1853	192			
	February 12, 1873	c 192.9			
Columbian half dollar	August 5, 1892	192.9	.900		d 2,501,052.50
Quarter dollar	April 2, 1792	104	.8924		49,160,461.25
	January 18, 1837	103¼	.900		
	February 21, 1853	96			
	February 12, 1873	e 96.45			
Columbian quarter dollar	March 3, 1893	96.45	.900		d 10,005.75
Twenty-cent piece	March 3, 1875	f 77.16	.900	May 2, 1878	271,000.00
Dime	April 2, 1792	41.6	.8924		28,775,218.30
	January 18, 1837	41¼	.900		
	February 21, 1853	38.4			
	February 12, 1873	g 38.58			
Half dime	April 2, 1792	20.8	.8924		4,880,219.40
	January 18, 1837	20⅝	.900		
	February 21, 1853	19.2		February 12, 1873	
Three-cent piece	March 3, 1851	12⅜	.750		1,282,087.30
	March 3, 1853	11.52	.900	February 12, 1873	
MINOR COINS.					
Five cent (nickel)	May 16, 1866	77.16	(h)		13,884,582.20
Three cent (nickel)	March 3, 1865	30	(h)	September 26, 1890	941,349.48
Two cent (bronze)	April 22, 1864	96	(i)	February 12, 1873	912,020.00
Cent (copper)	April 2, 1792	264			1,562,887.44
	January 14, 1793	208			
	January 26, 1796 (j)	168		February 21, 1857	
Cent (nickel)	February 21, 1857	72	(k)	April 22, 1864	2,007,720.00
Cent (bronze)	April 22, 1864	48	(i)		7,612,226.12
Half cent (copper)	April 2, 1792	132			39,928.11
	January 14, 1793	104			
	January 26, 1796 (j)	84		February 21, 1857	

a Amount coined to February 12, 1873, $8,031,238.
b Coinage limited to export demand, joint resolution, July 22, 1876.
c 12½ grams, or 192.9 grains.
d Total amount coined.
e 6¼ grams, or 96.45 grains.
f 5 grams, or 77.16 grains.
g 2½ grams, or 38.58 grains.
h Composed of 75 per cent copper and 25 per cent nickel.
i Composed of 95 per cent copper and 5 per cent tin and zinc.
j By proclamation of the President, in conformity with act of March 3, 1795.
k Composed of 88 per cent copper and 12 per cent nickel.

The total coinages to June 30, 1895, are as follows: Gold, $1,755,813,763; silver, $685,023,701.90; minor, $26,960,711.35; a grand total of $2,467,798,176.25.

VALUE OF THE SILVER IN A UNITED STATES SILVER DOLLAR.—he following table shows the value of the pure silver in a United tates silver dollar, reckoned at the commercial price of silver bullion om $0.50 to $1.2929 (parity) per fine ounce:

ALUE OF PURE SILVER IN A UNITED STATES SILVER DOLLAR ACCORDING TO PRICE OF SILVER BULLION.

Price of silver per fine ounce.	Value of pure silver in a silver dollar.	Price of silver per fine ounce.	Value of pure silver in a silver dollar.	Price of silver per fine ounce.	Value of pure silver in a silver dollar.
$0.50	$0.387	$0.77	$0.596	$1.04	$0.804
.51	.394	.78	.603	1.05	.812
.52	.402	.79	.611	1.06	.820
.53	.410	.80	.619	1.07	.828
.54	.418	.81	.626	1.08	.835
.55	.425	.82	.634	1.09	.843
.56	.433	.83	.642	1.10	.851
.57	.441	.84	.650	1.11	.859
.58	.449	.85	.657	1.12	.866
.59	.456	.86	.665	1.13	.874
.60	.464	.87	.673	1.14	.882
.61	.472	.88	.681	1.15	.889
.62	.480	.89	.688	1.16	.897
.63	.487	.90	.696	1.17	.905
.64	.495	.91	.704	1.18	.913
.65	.503	.92	.712	1.19	.920
.66	.510	.93	.719	1.20	.928
.67	.518	.94	.727	1.21	.936
.68	.526	.95	.735	1.22	.944
.69	.534	.96	.742	1.23	.951
.70	.541	.97	.750	1.24	.959
.71	.549	.98	.758	1.25	.967
.72	.557	.99	.766	1.26	.975
.73	.565	1.00	.773	1.27	.982
.74	.572	1.01	.781	1.28	.990
.75	.580	1.02	.789	1.29	.998
.76	.588	1.03	.797	a 1.2929	1.00

a Parity.

The following table shows the highest, lowest, and average value of a United States silver dollar, measured by the market price of silver, and the quantity of silver purchasable with a silver dollar at the average London price of silver, for each calendar year from 1873 to 1894:

BULLION VALUE AND PURCHASING POWER IN SILVER OF A UNITED STATES SILVER DOLLAR, 1873 TO 1894.

Year.	Bullion value of a silver dollar.			Grains of pure silver at average price purchasable with a United States silver dollar (a).
	Highest.	Lowest.	Average.	
1873	$1.016	$0.981	$1.004	369.77
1874	1.008	.970	.968	373.76
1875	.977	.941	.964	385.11
1876	.991	.792	.894	415.27
1877	.987	.902	.929	399.62
1878	.936	.839	.891	416.65
1879	.911	.828	.868	427.76
1880	.896	.875	.886	419.49
1881	.896	.862	.881	421.67
1882	.887	.847	.878	422.66
1883	.868	.847	.858	432.69
1884	.871	.839	.861	431.18
1885	.847	.794	.823	451.09
1886	.797	.712	.769	482.77
1887	.799	.733	.758	489.76
1888	.755	.706	.727	510.65
1889	.752	.746	.724	512.68
1890	.926	.740	.810	458.68
1891	.827	.738	.764	485.76
1892	.742	.642	.674	550.79
1893	.655	.513	.604	615.10
1894	.538	.457	.491	754.04

a 371.25 grains of pure silver are contained in a silver dollar.

PRODUCTION OF GOLD AND SILVER IN THE UNITED STATES AND IN THE WORLD.—The following table shows the production of the precious metals in the world for each calendar year from 1873 to 1894. The silver product is given at its commercial value, reckoned at the average market price of silver each year, as well as at its coining value in United States dollars:

PRODUCTION OF GOLD AND SILVER IN THE WORLD FOR EACH CALENDAR YEAR FROM 1873 TO 1894.

Year.	Gold.		Silver.		
	Fine ounces.	Value.	Fine ounces.	Commercial value.	Coining value.
1873	4,653,675	$96,200,000	63,267,187	$82,120,800	$81,800,000
1874	4,390,031	90,750,000	55,300,781	70,674,400	71,500,000
1875	4,716,563	97,500,000	62,261,719	77,578,100	80,500,000
1876	5,016,488	103,700,000	67,753,125	78,322,600	87,600,000
1877	5,512,190	113,947,200	62,679,916	75,278,600	81,040,700
1878	5,761,114	119,092,800	73,385,451	84,540,000	94,882,200
1879	5,262,174	108,778,800	74,383,495	83,532,700	96,172,600
1880	5,148,880	106,436,800	74,795,273	85,640,600	96,705,000
1881	4,983,742	103,023,100	79,020,872	89,925,700	102,168,400
1882	4,934,086	101,996,600	86,472,091	98,232,300	111,802,300
1883	4,614,588	95,392,000	89,175,023	98,984,300	115,297,000
1884	4,921,169	101,729,600	81,567,801	90,785,000	105,461,400
1885	5,245,572	108,435,600	91,609,959	97,518,800	118,445,200
1886	5,135,679	106,163,900	93,297,290	92,793,500	120,626,800
1887	5,116,861	105,774,900	96,123,586	94,031,000	124,281,000
1888	5,330,775	110,196,900	108,827,606	102,185,900	140,706,400
1889	5,973,790	123,489,200	120,213,611	112,414,100	155,427,700
1890	5,749,306	118,848,700	126,095,062	131,937,000	163,032,000
1891	6,320,194	130,650,000	137,170,919	135,500,200	177,352,300
1892	7,102,180	146,815,100	153,151,762	133,404,400	198,014,400
1893	7,608,787	157,287,600	166,092,047	129,551,800	214,745,300
1894	8,737,788	180,620,100	167,752,561	106,522,900	216,892,200
Total	122,235,638	2,526,834,900	2,130,397,137	2,151,474,700	2,754,452,900

The total production of gold and silver in the world since 1493 is shown in the first of the following tables. The second table shows the production of gold and silver from the mines of the United States by periods of years from 1792 to 1844, and annually from 1845 to 1894.

TION OF GOLD AND SILVER IN THE WORLD SINCE THE DIS AMERICA.

ion for 1493 to 1885 is from a table of averages for certain periods compiled
For the years 1886 to 1894 the production is the annual estimate of the Bures

Years.	Gold.		
	Annual average for period.		Total fo
	Fine ounces.	Value.	Fine ounces.
	186, 470	$3, 855, 000	5, 221, 160
	230, 194	4, 759, 000	5, 524, 656
	273, 596	5, 656, 000	4, 377, 544
	219, 906	4, 546, 000	4, 398, 120
	237, 267	4, 905, 000	4, 745, 340
	273, 918	5, 662, 000	5, 478, 360
	266, 845	5, 516, 000	5, 336, 900
	281, 955	5, 828, 000	5, 639, 110
	297, 709	6, 154, 000	5, 954, 180
	346, 095	7, 154, 000	6, 921, 895
	412, 163	8, 520, 000	8, 243, 260
	613, 422	12, 681, 000	12, 268, 440
	791, 211	16, 356, 000	15, 824, 230
	665, 666	13, 761, 000	13, 313, 315
	571, 948	11, 823, 000	11, 438, 970
	571, 563	11, 815, 000	5, 715, 627
	367, 957	7, 606, 000	3, 679, 568
	457, 044	9, 448, 000	4, 570, 444
	652, 291	13, 484, 000	6, 522, 913
	1, 760, 502	36, 393, 000	17, 605, 018
	6, 410, 324	132, 513, 000	32, 051, 621
	6, 486, 262	134, 083, 000	32, 431, 312
	5, 949, 582	122, 989, 000	29, 747, 913
	6, 270, 086	129, 614, 000	31, 350, 430
	5, 591, 014	115, 577, 000	27, 955, 068
	5, 543, 110	114, 586, 000	27, 715, 550
	4, 794, 755	99, 116, 000	23, 973, 773
	5, 135, 679	106, 163, 900	5, 135, 679
	5, 116, 861	105, 774, 900	5, 116, 861
	5, 330, 775	110, 196, 900	5, 330, 775
	5, 973, 790	123, 489, 200	5, 973, 790
	5, 749, 306	118, 848, 700	5, 749, 306
	6, 320, 194	130, 650, 000	6, 320, 194
	7, 102, 180	146, 815, 100	7, 102, 180

PRODUCTION OF GOLD AND SILVER IN THE WORLD SINCE THE DISCOVERY OF AMERICA.

[Production for 1493 to 1885 is from a table of averages for certain periods compiled by Dr. Adolph Soetbeer. For the years 1886 to 1894 the production is the annual estimate of the Bureau of the Mint.]

Silver.				Percentage of production.			
Annual average for period.		Total for period.		By weight.		By value.	
Fine ounces.	Coining value.	Fine ounces.	Coining value.	Gold.	Silver.	Gold.	Silver.
1,511,050	$1,954,000	42,309,400	$54,703,000	11	89	66.4	33.6
2,899,930	3,749,000	69,598,320	89,986,000	7.4	92.6	55.9	44.1
10,017,940	12,952,000	160,287,040	207,240,000	2.7	97.3	30.4	69.6
9,628,925	12,450,000	192,578,500	248,900,000	2.2	97.8	26.7	73.3
13,467,635	17,413,000	269,352,700	348,254,000	1.7	98.3	22	78
13,596,235	17,579,000	271,924,700	351,579,000	2	98	24.4	75.6
12,654,240	16,361,000	253,084,800	327,221,000	2.1	97.9	25.2	74.8
11,776,545	15,226,000	35,530,900	304,525,000	2.3	97.7	27.7	72.3
10,834,550	14,008,000	216,691,000	280,166,000	2.7	97.3	30.5	69.5
10,992,085	14,212,000	219,841,700	284,240,000	3.1	96.9	33.5	66.5
11,432,540	14,781,000	228,650,800	295,629,000	3.5	96.5	36.6	63.4
13,863,080	17,924,000	277,261,600	358,480,000	4.2	95.8	41.4	58.6
17,140,612	22,162,000	342,812,235	443,232,000	4.4	95.6	42.5	57.5
20,985,591	27,133,000	419,711,820	542,658,000	3.1	96.9	33.7	66.3
28,261,779	36,540,000	565,235,580	730,810,000	2	98	24.4	75.6
28,746,922	37,168,000	287,469,225	371,677,000	1.9	98.1	24.1	75.9
17,385,755	22,479,000	173,857,555	224,786,000	2.1	97.9	25.3	74.7
14,807,004	19,144,000	148,070,040	191,444,000	3	97	33	67
19,175,867	24,793,000	191,758,675	247,930,000	3.3	96.7	35.2	64.8
25,090,342	32,440,000	250,903,422	324,400,000	6.6	93.4	52.9	47.1
28,488,597	36,824,000	142,442,986	184,169,000	18.4	81.6	78.3	21.7
29,095,428	37,618,000	145,477,142	188,092,000	18.2	81.8	78.1	21.9
35,401,972	45,772,000	177,009,862	228,861,000	14.4	85.6	72.9	27.1
43,051,583	55,663,000	215,257,914	278,313,000	12.7	87.3	70	30
63,317,014	81,864,000	316,585,069	409,322,000	8.1	91.9	58.5	41.5
78,775,602	101,851,000	393,878,009	509,256,000	6.6	93.4	53	47
92,003,944	118,955,000	460,019,722	594,773,000	5	95	45.5	54.5
93,297,290	120,626,800	93,297,290	120,626,800	5.2	94.8	46.8	53.2
96,123,586	124,281,000	96,123,586	124,281,000	5	95	45.9	54.1
108,827,606	140,706,400	108,827,606	140,706,400	4.6	95.4	43.9	56.1
120,213,611	155,427,700	120,213,611	155,427,700	4.7	95.3	44.3	55.7
126,095,062	163,032,000	126,095,062	163,032,000	4.3	95.7	42.1	57.9
137,170,919	177,352,300	137,170,919	177,352,300	4.4	95.6	42.4	57.6
153,151,762	198,014,400	153,151,762	198,014,400	4.4	95.6	42.5	57.5
166,092,047	214,745,300	166,092,047	214,745,300	4.4	95.6	42.4	57.6
167,752,561	216,892,200	167,752,561	216,892,200	4.9	95.1	45.6	54.4
.....	.....	7,836,325,160	10,131,814,100	5	95	45.6	54.4

	65,000,000	
1854	60,000,000	
1855	55,000,000	
1856	55,000,000	
1857	55,000,000	
1858	50,000,000	
1859	50,000,000	
1860	46,000,000	
1861	43,000,000	
1862	39,200,000	
1863	40,000,000	
1864	46,100,000	1
1865	53,225,000	1
1866	53,500,000	1
1867	51,725,000	1
1868	48,000,000	1
1869	49,500,000	1
1870	50,000,000	1
1871	43,500,000	2
1872	36,000,000	2
1873	36,000,000	3
1874	33,500,000	3
1875	33,400,000	31,
1876	39,900,000	38,
1877	46,900,000	39,
1878	51,200,000	45,
1879	38,900,000	40,
1880	36,000,000	39,
1881	34,700,000	43,
1882	32,500,000	46,
1883	30,000,000	46,
1884	30,800,000	48,
1885	31,800,000	51,
1886	35,000,000	51,
1887	33,000,000	53,
1888	33,175,000	59,
1889	32,800,000	64,
1890	32,845,000	70,
1891	33,175,000	75,
1892	33,000,000	82,
1893	35,955,000	77,
1894	39,500,000	64,
Total	2,013,336,769	1,296,

VALUES OF FOREIGN COINS.—The following table gives the value of foreign coins on January 1, 1896, as estimated by the Director of the Mint, in pursuance of the provisions of section 25 of the act of August 28, 1894, as follows:

That the value of foreign coins as expressed in the money of account of the United States shall be that of the pure metal of such coin of standard value; and the values of the standard coins in circulation of the various nations of the world shall be estimated quarterly by the Director of the Mint and be proclaimed by the Secretary of the Treasury immediately after the passage of this act and thereafter quarterly on the 1st day of January, April, July, and October in each year.

American States:		
Costa Rica	Silver	
Guatemala		
Honduras		
Nicaragua		
Salvador		
Chile	Gold and silver	
China	Silver	
Colombia	Silver	I
Cuba	Gold and silver	I
Denmark	Gold	C
Ecuador	Silver	S
Egypt	Gold	P
Finland	Gold	M
France	Gold and silver	F
German Empire	Gold	M
Great Britain	Gold	P
Greece	Gold and silver	D
Haiti	Gold and silver	G
India	Silver	R
Italy	Gold and silver	Li
Japan	Gold and silver (a)	Ye
Liberia	Gold	Do
Mexico	Silver	Do
Netherlands	Gold and silver	Fl
Newfoundland	Gold	Do
Norway	Gold	Cr
Persia	Silver	Kr
Peru	Silver	Sol
Portugal	Gold	Mi
Russia	Silver (c)	Ru
Spain	Gold and silver	Pe
Sweden	Gold	Cr
Switzerland	Gold and silver	Fr
Tripoli	Silver	Ma
Turkey	Gold	Pi
Venezuela	Gold and silver	Bo

a Gold the nominal standard. Silver practically the standard.
c Silver the nominal standard. Paper the actual currency, the depreciation
he gold standard.

VALUES OF FOREIGN COINS JANUARY 1, 1896, AS ESTIMATED BY THE DIRECTOR OF THE MINT.

Value in terms of United States gold dollar.	Coins.
$0.965	Gold, argentine ($4.824) and ½ argentine; silver, peso and divisions.
.203	Gold, former system, 4 florins ($1.929), 8 florins ($3.858), ducat ($2.287) and 4 ducats ($9.149); silver, 1 and 2 florins; gold, present system, 20 crowns ($4.052), 10 crowns ($2.026).
.193	Gold, 10 and 20 francs; silver, 5 francs.
.491	Silver, boliviano and divisions.
.546	Gold, 5, 10, and 20 milreis; silver, ½, 1, and 2 milreis.
1.000	
.491	Silver, peso and divisions.
.912	Gold, escudo ($1.824), doubloon ($4.561), and condor ($9.123); silver, peso and divisions.
.725	
.808	
.769	
.759	
.491	Gold, condor ($9.647) and double condor; silver, peso.
.926	Gold, doubloon ($5.017); silver, peso.
.268	Gold, 10 and 20 crowns.
.491	Gold, condor ($9.647) and double condor; silver, sucre and divisions.
4.943	Gold, pound (100 piasters), 5, 10, 20, and 50 piasters; silver, 1, 2, 5, 10, and 20 piasters.
.193	Gold, 20 marks ($3.859), 10 marks ($1.93).
.193	Gold, 5, 10, 20, 50, and 100 francs; silver, 5 francs.
.238	Gold, 5, 10, and 20 marks.
4.866½	Gold, sovereign (pound sterling) and ½ sovereign.
.193	Gold, 5, 10, 20, 50, and 100 drachmas; silver 5 drachmas.
.965	Silver, gourde.
.233	Gold, mohur ($7.105); silver, rupee and divisions.
.193	Gold, 5, 10, 20, 50, and 100 lire; silver, 5 lire.
.997	Gold, 1, 2, 5, 10, and 20 yen.
.529	Silver, yen.
1.000	
.533	Gold, dollar ($0.983), 2½, 5, 10, and 20 dollars; silver, dollar (or peso) and divisions.
.402	Gold, 10 florins; silver, ½, 1, and 2½ florins.
2.014	Gold, 2 dollars ($2.027)
.268	Gold, 10 and 20 crowns.
.090	Gold, ½, 1, and 2 tomans ($3.409); silver, ¼, ½, 1, 2, and 5 krans.
.491	Silver, sol and divisions.
1.080	Gold, 1, 2, 5, and 10 milreis.
.772	Gold, imperial ($7.718) and ½ imperial (*b*) ($3.86).
.393	Silver, ¼, ½, and 1 ruble.
.193	Gold, 25 pesetas; silver, 5 pesetas.
.268	Gold, 10 and 20 crowns.
.193	Gold, 5, 10, 20, 50, and 100 francs; silver, 5 francs.
.443	
.044	Gold, 25, 50, 100, 250, and 500 piasters.
.193	Gold, 5, 10, 20, 50, and 100 bolivars; silver, 5 bolivars.

b Coined since January 1, 1886. Old half-imperial =$3.986.

NS AND APPROXIMATE STOCKS OF MONEY IN THE A
APITA IN THE PRINCIPAL COUNTRIES OF THE WO

onetary systems and the approximate stock of gold, silver, a
obtainable, and, while necessarily but an estima

	Monetary system.	Ratio between gold and full legal-tender silver.	Ratio between gold and limited-tender silver.	Population.
.....	Gold and silver.	1 to 15.98	1 to 14.95	70,400,000
.....	Gold.....	.....	1 to 14.28	38,900,000
.....	Gold and silver.	1 to 15½	1 to 14.38	38,300,000
.....	Gold.....	.....	1 to 13.957	51,200,000
.....	Gold and silver.	1 to 15½	1 to 14.38	6,300,000
.....	Gold and silver.	1 to 15½	1 to 14.38	30,700,000
.....	Gold and silver.	1 to 15½	1 to 14.38	3,000,000
.....	Gold and silver.	1 to 15½	1 to 14.38	2,200,000
.....	Gold and silver.	1 to 15½	1 to 14.38	17,500,000
.....	Gold.....	.....	1 to 14.08	5,100,000
.....	Gold and silver.	.....	.....	5,800,000
.....	Gold and silver.	.....	.....	2,300,000
.....	Gold.....	.....	1 to 13.68	43,500,000
.....	Gold and silver.	1 to 15½	1 to 15	4,700,000
.....	Gold.....	.....	1 to 14.88	2,000,000
.....	Gold.....	.....	1 to 14.88	4,800,000
.....	Gold.....	.....	1 to 14.88	2,300,000
.....	Silver.....	1 to 15½	1 to 12.90	126,000,000
.....	Gold and silver.	1 to 15½	1 to 15½	22,000,000
.....	Gold.....	.....	1 to 14.28	4,700,000
.....	Gold.....	.....	1 to 15.68	6,800,000
.....	Silver.....	1 to 16½	.....	12,100,000
tates .	Silver.....	1 to 15½	.....	5,600,000
ates ...	Silver.....	1 to 15½	.....	36,000,000
.....	Gold and silver.	1 to 16.18	.....	41,100,000
.....	Gold and silver.	1 to 15	.....	296,000,000
.....	Silver.....	.....	.....	380,000,000
.....	Gold and silver.	.....	.....	3,800,000
.....	Gold.....	.....	1 to 14.28	4,800,000
.....	Gold and silver.	1 to 15½	.....	1,800,000
.....	Gold and silver.	1 to 15½	.....	1,000,000
.....	Gold and silver.	1 to 15½	1 to 14.38	4,300,000
.....	.....	.....	.....	.....

MONETARY SYSTEMS AND APPROXIMATE STOCKS OF MONEY IN THE AGGREGATE AND PER CAPITA IN THE PRINCIPAL COUNTRIES OF THE WORLD.

paper money in the principal countries of the world has been compiled from the latest information to show approximately the stock of money in the world.]

Stock of silver.			Uncovered paper.	Per capita.				
Full tender.	Limited tender.	Total.		Gold.	Silver.	Paper.	Total.	
$548,400,000	$77,200,000	$625,600,000	$416,700,000	$8.78	$8.89	$5.92	$23.59	1
.....	b 115,000,000	115,000,000	c 113,400,000	14.91	2.96	2.91	20.78	2
b 430,000,000	c 57,900,000	487,900,000	c 32,100,000	22.19	12.94	.84	35.77	3
b 105,000,000	b 110,000,000	215,000,000	c 60,400,000	12.21	4.20	1.18	17.59	4
b 48,000,000	b 6,900,000	54,900,000	c 65,400,000	8.73	8.71	10.38	27.82	5
b c 21,400,000	b c 20,000,000	41,400,000	c 191,800,000	3.20	1.35	6.24	10.79	6
b 10,000,000	5,000,000	15,000,000	.....	4.97	5.00	.....	9.97	7
b 500,000	b 1,000,000	1,500,000	c 22,400,000	.23	.68	10.18	11.09	8
b 128,000,000	b 40,000,000	168,000,000	c 83,700,000	2.28	9.49	4.78	16.55	9
.....	b 24,800,000	24,800,000	c 55,100,000	7.45	4.86	10.80	23.11	10
.....	c 10,600,000	10,600,000	c 11,700,000	6.65	1.83	2.02	10.50	11
.....	c 1,900,000	1,900,000	b 3,800,000	1.30	.83	1.65	3.78	12
l 80,000,000	b 40,000,000	120,000,000	c 204,300,000	3.22	2.76	4.69	10.67	13
c 53,000,000	c 3,200,000	56,200,000	c 28,600,000	6.21	11.96	6.08	24.25	14
.....	b 2,000,000	2,000,000	c 3,800,000	3.75	1.00	1.90	6.65	15
.....	c 4,800,000	4,800,000	c 2,100,000	1.66	1.00	.43	3.10	16
.....	c 5,400,000	5,400,000	c 5,400,000	6.30	2.35	2.35	11.00	17
.....	b 48,000,000	48,000,000	c 539,000,000	3.80	.38	4.28	8.46	18
l 30,000,000	d 10,000,000	40,000,000	.....	2.27	1.82	.....	4.09	19
.....	b 7,000,000	7,000,000	.....	24.47	1.49	.....	25.96	20
.....	b 15,000,000	15,000,000	.....	17.65	2.20	.....	19.85	21
b 55,000,000	.....	55,000,000	b 2,000,000	.41	4.54	.....	4.95	22
c 12,000,000	.....	12,000,000	c 8,000,000	.09	2.14	1.43	3.66	23
l 30,000,000	.....	30,000,000	b 550,000,000	1.11	.83	15.28	17.22	24
c 68,000,000	c 16,300,000	84,300,000	.....	1.95	2.05	.....	4.00	25
b 950,000,000	.....	950,000,000	b 37,000,000	.....	3.21	.12	3.33	26
b 750,000,000	.....	750,000,000	.....	.....	2.08	.....	2.08	27
b 115,000,000	.....	115,000,000	.....	.....	3.26	.....	3.26	28
.....	b 5,000,000	5,000,000	b 29,000,000	2.92	1.04	6.04	10.00	29
b 1,500,000	.....	1,500,000	.....	10.00	.83	.....	10.83	30
b 2,100,000	b 800,000	2,900,000	c 4,200,000	3.00	2.90	4.20	10.10	31
b 3,400,000	3,400,000	6,800,000	.....	.18	1.58	.....	1.76	32
3,439,300,000	631,200,000	4,070,500,000	2,469,900,000	.....	.....	.....	.....	

c Information furnished through United States representatives.
d Haupt.

1687....	14.94	1722...	15.17	1757...	14.87	1792...	15.11
1688....	14.94	1723...	15.20	1758...	14.85	1793...	15.03
1689....	15.02	1724...	15.11	1759...	14.15	1794...	15.37
1690....	15.02	1725...	15.11	1760 ..	14.14	1795...	15.55
1691....	14.98	1726...	15.15	1761...	14.54	1796...	15.65
1692....	14.92	1727...	15.24	1762...	15.27	1797...	15.41
1693....	14.83	1728...	15.11	1763...	14.99	1798...	15.50
1694....	14.87	1729...	14.92	1764...	14.70	1799...	15.74
1695....	15.02	1730...	14.81	1765...	14.83	1800...	15.68
1696....	15.00	1731...	14.94	1766...	14.80	1801...	15.46
1697....	15.20	1732...	15.09	1767...	14.85	1802...	15.26
1698....	15.07	1733...	15.18	1768..	14.80	1803...	15.41
1699....	14.94	1734...	15.39	1769...	14.72	1804...	15.41
1700....	14.81	1735...	15.41	1770...	14.62	1805...	15.70
1701....	15.07	1736...	15.18	1771...	14.66	1806...	15.52
1702....	15.52	1737...	15.02	1772...	14.52	1807...	15.43
1703....	15.17	1738...	14.91	1773...	14.62	1808...	16.08
1704....	15.22	1739...	14.91	1774...	14.62	1809...	15.96
1705....	15.11	1740...	14.94	1775...	14.72	1810...	15.77
1706....	15.27	1741...	14.92	1776...	14.55	1811...	15.53
1707....	15.44	1742...	14.85	1777...	14.54	1812...	16.11
1708....	15.41	1743...	14.85	1778...	14.68	1813...	16.25
1709....	15.31	1744...	14.87	1779...	14.80	1814...	15.04
1710....	15.22	1745...	14.98	1780...	14.72	1815...	15.26
1711....	15.29	1746...	15.13	1781...	14.78	1816...	15.28
1712....	15.31	1747...	15.26	1782...	14.42	1817...	15.11
1713....	15.24	1748...	15.11	1783...	14.48	1818...	15.35
1714....	15.13	1749...	14.80	1784...	14.70	1819...	15.33
1715....	15.11	1750...	14.55	1785...	14.92	1820...	15.62
1716....	15.09	1751...	14.39	1786 ..	14.96	1821...	15.95
1717....	15.13	1752...	14.54	1787...	14.92	1822...	15.80
1718....	15.11	1753...	14.54	1788...	14.65	1823...	15.84
1719....	15.09	1754...	14.48	1789...	14.75	1824...	15.82
1720....	15.04	1755...	14.68	1790...	15.04	1825...	15.70
1721....	15.05	1756...	14.94	1791...	15.05	1826...	15.76

THE WEALTH AND RECEIPTS AND EXPENSES OF THE UNITED STATES.

BY WILLIAM M. STEUART.

Numerous methods of presenting the wealth of the country and the receipts and expenses of the Federal, State, and local governments have been used, each depending on the amount of detail desired and the particular features to be emphasized. The presentation here adopted is not designed to develop details, but to show at a glance the increase and decrease in the wealth of the country and in the receipts and expenses of the Government.

From the reports of the Eleventh Census it appears that the total true valuation of the real and personal property in the United States in 1890 amounted to $65,037,091,197; the total value of the products of productive industry, which include manufactures, and farm, fishery, and mineral products for the same year, amounted to $12,148,380,626. The total revenues collected during 1890 by the Federal, State, and local governments are reported at $1,040,473,013 and the expenditures at $915,954,055, the receipts exceeding the expenditures by $124,518,958, of which amount the excess in the transactions of the Federal government, including postal service, amounted to $108,936,066, leaving $15,582,892 as a surplus arising from the financial transactions of the State and local governments. The total Federal, State, county or parish, municipal, and school district debts of the country, including the debts of irrigation districts in California and the fire districts of Massachusetts, amounted to $2,027,170,546.

Complete statistics concerning the wealth, income, expenses, and indebtedness for the entire country are not available for any year except 1890. The data given in the accompanying tables show the total population at the different censuses from 1800 to 1890, inclusive, the wealth (namely, the true value (*a*) of real and personal property) and the value of manufactures, and farm, fishery, and mineral products as reported at the different censuses from 1850 to 1890, inclusive, also the total national debt, less the cash in the Treasury, at the close of the fiscal years 1860, 1870, 1880, and 1890. The figures showing the fiscal operations of the Federal government give the average annual receipts and expenses for the ten decades ending with each of the census years

a The true value is what would be deemed a fair selling price for the property, and is thus termed in distinction from the assessed valuation.

from 1800 to 1890, inclusive. The receipts and expenses of the Federal government include premiums and interest. The division of the expenses into ordinary and extraordinary is arbitrary, the intention being to group under the latter title a number of items of expense that may be considered as not forming a part of the ordinary, current, necessary expenses of the Government. The extraordinary expenses include amounts paid as pensions; for the support of the Indians; the improvement of rivers and harbors; the erection and repair of forts, arsenals, armories, custom-houses, court-houses, and post-offices; payments on interest and as premiums; also expenditures for the increase of the Navy since 1885.

The totals grouped under the respective heads enumerated are shown in the following tables:

POPULATION, WEALTH, VALUE OF PRODUCTS OF INDUSTRY, AND DEBT.

Census year.	Population.	Wealth.	Value of manufactures, and farm, fishery, and mineral products.	Total national debt less cash in Treasury at end of fiscal year.
1800	5,308,483			
1810	7,239,881			
1820	9,633,822			
1830	12,866,020			
1840	17,069,453			
1850	23,191,876	$7,135,780,228	*a* $1,029,106,798	
1860	31,443,321	16,159,616,068	*a* 1,898,785,768	$59,964,402.[illegible]
1870	38,558,371	30,068,518,507	*b* 6,843,559,616	2,331,169,936.[illegible]
1880	50,155,783	43,642,000,000	*c* 7,974,097,438	1,919,326,767.[illegible]
1890	62,622,250	65,037,091,197	*d* 12,148,380,626	890,784,370.[illegible]

a Not including value of farm products.
b Value of farm products includes betterments and addition to stock.
c Certain duplications in statistics of manufactures as published have been eliminated.
d Not including certain manufacturing industries not fully enumerated at prior censuses.

AVERAGE ANNUAL RECEIPTS AND EXPENSES OF THE FEDERAL GOVERNMENT.

Decade ending—	Receipts.	Expenses (exclusive of payments on public debt).		
		Ordinary.	Extraordinary.	Total.
1800	$6,776,891.80	$3,944,452.40	$2,889,380.46	$6,833,832.[illegible]
1810	13,056,864.78	4,877,316.43	3,982,137.23	8,859,453.[illegible]
1820	21,066,958.73	17,406,690.57	6,474,175.99	23,880,866.[illegible]
1830	21,923,071.60	9,506,394.62	6,652,161.93	16,158,556.[illegible]
1840	30,461,109.62	17,266,408.59	7,226,801.02	24,493,209.[illegible]
1850	27,117,363.77	26,432,418.51	5,884,075.60	32,318,494.[illegible]
1860	60,237,254.13	48,964,936.88	11,206,918.92	60,171,855.[illegible]
1870	304,100,050.83	418,932,409.30	111,781,417.79	530,713,827.[illegible]
1880	312,476,778.23	109,531,577.51	159,515,686.05	269,047,263.[illegible]
1890	371,204,582.21	117,287,583.36	151,124,961.91	268,412,545.[illegible]

The values of the products of industry shown for 1850 and 1860 do not include some elements that enter into the values for subsequent years. This fact, combined with the improvement in statistical methods and the greater care bestowed on the enumeration at subsequent censuses, will not permit of the use of percentages based on these figures or on the total wealth as indicating the exact increase. The percentages given for the other items in the following tables are based on definitely ascertained totals and show actual conditions. War expenses and

various other conditions controlling the receipts, expenses, and debt of the Government, as well as the inflated value of currency in 1870 as compared with gold, and the relatively prosperous or depressed condition of business during the respective census years must also be considered in accepting the percentages given in the following tables:

PERCENTAGES OF INCREASE OF POPULATION, WEALTH, VALUE OF PRODUCTS OF INDUSTRY, AND DEBT.

Census year.	Population.	Wealth.	Value of manufactures, and farm, fishery, and mineral products.	Total national debt, less cash in Treasury.	Census year.	Population.	Wealth.	Value of manufactures, and farm, fishery, and mineral products.	Total national debt less cash in Treasury.
1800	.....	.....	.....	.....	1850	35.87	.....	.....	.....
1810	36.38	.....	.....	.....	1860	35.58	126.46	84.51	.....
1820	33.07	.....	.....	.....	1870	22.63	86.07	260.41	3,787.59
1830	33.55	.....	.....	.....	1880	30.08	45.14	16.52	a 17.67
1840	32.67	.....	.....	.....	1890	24.86	49.02	52.35	a 53.59

a Decrease.

PERCENTAGES OF INCREASE OF RECEIPTS AND EXPENSES OF THE FEDERAL GOVERNMENT.

Decade ending—	Average annual receipts.	Average annual expenses.			Decade ending—	Average annual receipts.	Average annual expenses.		
		Ordinary.	Extraordinary.	Total.			Ordinary.	Extraordinary.	Total.
1800	.....	.....	.....	.....	1850	a 10.98	53.09	a 18.58	31.94
1810	92.67	23.65	37.82	29.64	1860	122.14	85.25	90.46	86.20
1820	61.35	256.89	62.58	169.55	1870	404.84	755.58	897.43	782.00
1830	4.06	a 45.39	2.75	a 32.34	1880	2.75	a 73.85	42.70	a 49.30
1840	38.95	a 1.63	8.64	51.58	1890	18.79	7.08	a 5.26	a .24

a Decrease.

These tables, showing increases or decreases from decade to decade, when accompanied by the following tables, which show, per capita, the items given in the tables above, present in convenient summaries the available data pertaining to the growth of the country and the financial operations of the Federal government during the past ninety years:

PER CAPITA WEALTH, VALUE OF PRODUCTS OF INDUSTRY, AND DEBT.

Census year.	Wealth.	Value of manufactures, and farm, fishery, and mineral products.	Total national debt, less cash in Treasury.	Census year.	Wealth.	Value of manufactures, and farm, fishery, and mineral products.	Total national debt less cash in Treasury.
1800	.....	.....	.....	1850	$307.68	$44.37	.....
1810	.....	.....	.....	1860	513.93	60.39	$1.91
1820	.....	.....	.....	1870	779.82	177.49	60.46
1830	.....	.....	.....	1880	870.13	158.99	38.27
1840	.....	.....	.....	1890	a 1,036.01	193.99	14.22

a Not including the values for Indian Territory.

PER CAPITA RECEIPTS AND EXPENSES OF THE FEDERAL GOVERNMENT.

Decade ending—	Average annual receipts.	Average annual expenses.			Decade ending—	Average annual receipts.	Average annual expenses.		
		Ordinary.	Extraordinary.	Total.			Ordinary.	Extraordinary.	Total.
1800	$1.28	$0.74	$0.55	$1.29	1850	$1.17	$1.14	$0.25	$1.39
1810	1.80	.67	.55	1.22	1860	1.92	1.56	.35	1.91
1820	2.19	1.81	.67	2.48	1870	7.89	10.86	2.90	13.76
1830	1.70	.74	.52	1.26	1880	6.23	2.18	3.18	5.36
1840	1.78	1.01	.42	1.43	1890	5.93	1.87	2.41	4.28

While no extended explanation will be made of apparent inconsistencies in the above tables, attention is called to the tables showing percentages of increase. The large increases shown for 1870 are due principally to expenses of the civil war and the inflated value of currency as compared with gold. The largest percentages of increase during the decade ending with 1870 are shown for extraordinary expenses and the total debt less cash in the Treasury, the large increase in both these items being due primarily to war expenses. On the other hand, the amount of extraordinary expenses per capita, as shown by the last table, is the smallest per capita item shown for 1870, and is due to the comparatively small total of such expenses.

While, for the reasons given, the totals for wealth and values of products of industry can only be used in a general way for comparison, the totals for 1860 may be accepted as showing the conditions prevailing during the decade immediately preceding the civil war and those for 1890 as indicating the conditions that prevailed during a decade after the direct effects of the war had disappeared. The two totals therefore indicate normal conditions. Comparing the two years it appears that the total wealth per capita increased from $513.93 to $1,036.01, or 101.59 per cent, and the per capita value of the products of industry increased from $60.39 to $193.99, or 221.23 per cent, while the receipts per capita of the Government increased from $1.92 to $5.93, or 208.85 per cent, and the total expenses from $1.91 to $4.28, or 124.08 per cent. The actual increase per capita in expenses was $2.37, of which increase the ordinary expenses constituted 31 cents, increasing 19.87 per cent, and the extraordinary $2.06, increasing 588.57 per cent. One of the largest items of expense entering into the average total of extraordinary expenses for the decade ending with 1890 is pensions. Excluding this item the yearly average for the decade would be $80,901,696.76, giving an extraordinary expense per capita of $1.29, an increase over that of 1860 of 268.57 per cent.

While the tables giving the percentages of increase show that the total receipts and expenses of the Government have increased largely as was necessary to be in keeping with the development of the nation in all directions, the tables giving the per capita items show that the receipts and expenses have not increased abnormally when compared with the increase in wealth and industry. An increase is shown in per capita wealth and values of industry since 1870, while a varying decrease is shown in receipts and expenses, as well as in the national debt.

DECISIONS OF COURTS AFFECTING LABOR.

In Bulletin No. 1, issued in November, 1895, by the Department of Labor, it was stated in the introduction that one of the intended departments of information in each issue of the bulletin would consist in "the reproduction, immediately after their passage, of new laws that affect the interests of the working people whenever such are enacted by State legislatures or by Congress; also, the reproduction of the decisions of courts interpreting labor laws or passing upon any subject which involves the relations of employer and employee. Attention likewise will be called to any other matters pertaining to law which may be of concern and value to the industrial interests of the country, and which might not be obtained without expense or trouble from other sources."

In conformity with the above announcement, certain recent decisions rendered by the supreme courts of various States and the United States, passing upon the validity of labor laws or deciding cases arising under such laws or under the common law governing the relations of employers and employees, are here published. These decisions are not, as a rule, reproduced in full, their length and the space limitations of the bulletin preventing such a course; but when not given in full, their substance and the reasons upon which they are based are given in the language of the courts; in other words, they are quoted, when not fully reproduced, at sufficient length to give a full and clear understanding of the basis and scope of each opinion.

The decisions herein published are classed with reference to the character of the law under which they were rendered, those deciding cases which arose under legislative enactments being first presented, followed by such as determine cases under the common law.

DECISIONS UNDER STATUTORY LAW.

By act approved October 21, 1891, the legislature of the State of Georgia required certain corporations to give to their discharged employees or agents the causes of removal or discharge, the language of the act being as follows:

SECTION 1. Hereafter, when any railroad company, telegraph company, express company, or electric street railroad company shall discharge or remove any agent or employee, it shall be the duty of such company, when requested, in writing, by such discharged agent or

employee, to give a specific statement, in writing, setting
reason or reasons which have prompted, caused, or induced
charge or removal, and if such discharge or removal has been
caused, or induced, in whole or in part, by any complaint or
cation made to such company, it shall be the duty of the c
inform the discharged agent or employee of the substance
of such communication or complaint, and when and by w
complaint or communication was made.

SEC. 2. The written request provided for in the preceding
this act, to be effective, must be signed by the discharge
employee, and be delivered, by an officer authorized to serve t
of citation of a court within this State, either to the president,
or treasurer of such company, or to the local agent represe
company in any county within this State, or by leaving the s
principal office of such company during office hours.

SEC. 3. Any company to whom has been delivered a writte
as provided for in the preceding section of this act, shall ha
days from the date of the delivery thereof within which t
information requested. The statement required by such c
be given to a discharged agent or employee may be delivere
agent or employee by an officer authorized to serve the proc
tion, or by leaving the same, addressed to such discharge
employee, with the county clerk of the county in which t
request was preferred. If such company shall fail or refuse
information as hereinbefore provided for, or shall give a false
thereof, it shall be liable to such discharged agent or employe
ages in the sum of five thousand dollars.

One Wallace brought suit under this statute against th
Carolina and Northern Railway Company, to recover the sum
alleging that after the company, by contract made July 9,
employed him as its chief car inspector, and while he was
his duties as such on August 12, 1892, the company discharge
August 18, 1892, he made a written request of the company t
a specific statement in writing of the reasons which had cau
charge, and, if the same had been induced in whole or in part b
munication made to the company, to inform him of the natu
stance of such communication or complaint, and when and
was made. This written request was signed by him, and o
day was served on the company by being delivered to the
of the company at its office in Fulton County by the she
county. Afterwards the plaintiff waited for more than tw
within which time the defendant should have delivered the wr
ment, as requested, to the plaintiff, or left it, addressed to
the county clerk; but the defendant failed and refused t
information as requested, and as required by law, whereby

Reporter, and the syllabus of the same, prepared by the court, is
rs:

nblic, whether as many or one, whether as a multitude or a
nty, has no interest to be protected or promoted by a corre-
ce between discharged agents or employees and their late
rs, designed not for public but for private information, as to
ons for discharges and as to the import and authorship of all
nts or communications which produced or suggested them. A
which undertakes to make it the duty of incorporated rail-
press, and telegraph companies to engage in correspondence of
with their discharged agents and employees, and which sub-
m in each case to a heavy forfeiture under the name of damages
ng or refusing to do so, is violative of the general private right
e enjoyed in this State by all persons, natural or artificial, from
nemorial, and is utterly void and of no effect. Liberty of speech
writing is secured by the constitution, and incident thereto is
elative liberty of silence, not less important nor less sacred.
nts or communications, oral or written, wanted for private
ion can not be coerced by mere legislative mandate at the will
f the parties and against the will of the other. Compulsory
liscovery, even from corporations, enforced not by suit or action
statutory terror, is not allowable where rights are under the
nship of due process of law.
ows from the foregoing that the act of October 21, 1891, entitled
t to require certain corporations to give their discharged
es or agents the causes of their removal or discharge when dis-
or removed," is unconstitutional, and that an action founded
for the recovery of $5,000 as penalty or arbitrary damages, fixed
atute for noncompliance with its mandates, can not be supported.

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t approved June 17, 1893, the legislature of Illinois under-
regulate the manufacture of clothing, wearing apparel, and
icles in this State, and to provide for the appointment of State
rs to enforce the same, and to make an appropriation therefor."
the complaint of the factory inspector, appointed under this law,
t was issued by a justice of the peace of Cook County against
E. Ritchie for violating section 5 of the statute in question by
ng a certain adult female, more than 18 years of age, at work in
more than eight hours on a certain day in February, 1894. The
tried in the criminal court of Cook County, on appeal from the
t of the justice of the peace, and the defendant was convicted
l, whereupon the case was brought, on writ of error, before the
court of Illinois, which tribunal, on March 14, 1895, reversed
ment of the criminal court and decided that section 5 of the act
eclares that "no female shall be employed in any factory or
p more than eight hours in any one day or forty-eight hours in
week" is unconstitutional; the court also decided the first
f section 10, which appropriated $20,000 for the salaries of the
inspectors, to be unconstitutional.
ecision in this case, which is published in full in volume 40 of
theastern *Reporter, page 454,* is followed in the case of Tilt v.

People, and in several other cases, all of which are named on page 462 of the volume referred to.

The substance of the decision in the Ritchie case, delivered by Judge Magruder, is as follows:

While some of the language of this act is broad enough to embrace within its terms the manufacture of all kinds of goods or products, other provisions of the act are limited to the manufacture of "coats, vests, trousers, knee pants, overalls, cloaks, skirts, ladies' waists, purses, feathers, artificial flowers, or cigars, or any wearing apparel of any kind whatsoever." The act is entitled "An act to regulate the manufacture of clothing, wearing apparel, and other articles," etc. If it be construed as applying only to manufacturers of clothing, wearing apparel, and articles of a similar nature, there appears to be no reasonable ground for prohibiting such manufacturers and their employees from contracting for more than eight hours in one day, while other manufacturers are not forbidden to so contract. If the act be construed as applying to manufacturers of all kinds of products there is no good reason why the prohibition should be directed against manufacturers and their employees, and not against merchants, or builders, or contractors, or carriers, or farmers, or persons engaged in other branches of industry and their employees. Women employed by manufacturers are forbidden by section 5 of the act in question to make contracts to labor longer than eight hours per day, while women employed as saleswomen in stores, or as domestic servants, bookkeepers, stenographers, typewriters, or in laundries, or other occupations not embraced under the head of manufacturing, are at liberty to contract for as many hours of labor per day as they choose. The manner in which this section discriminates against one class of employers and employees, and in favor of all others, renders it invalid.

But aside from its partial and discriminating character this enactment is a purely arbitrary restriction upon the fundamental right of the citizen to control his or her own time and faculties. It substitutes the judgment of the legislature for the judgment of the employer and employee in a matter about which they are competent to agree with each other. It assumes to dictate to what extent the capacity to labor may be exercised by the employee, and takes away the right of private judgment as to the amount and duration of the labor to be put forth in a specified period. Section 2 of article 2 of the constitution of Illinois provides that "no person shall be deprived of life, liberty, or property without due process of law." The privilege of contracting is both a liberty and property right—the right to use, buy, and sell property and to contract in respect thereto is protected by the constitution. Labor is property, and the laborer has the same right to sell his labor and to contract with reference thereto as has any other property owner. The legislature has no power to prevent persons who are sui juris from making their own contracts, nor can it interfere with the freedom of contract between the workman and the employer. The right to labor or employ labor, and make contracts in respect thereto upon such terms as may be agreed upon between the parties, is included in the constitutional guaranty above quoted. "Liberty" includes the right to make contracts as well with reference to the amount and duration of labor to be performed as concerning any other lawful matter. Hence the right to make contracts is an inalienable one, and any attempt to unreasonably abridge it is opposed to the constitution.

The protection of property is one of the objects for which free governments are instituted among men. The right to acquire, possess, and protect property includes the right to make reasonable contracts; and when an owner is deprived of one of the attributes of property, like the right to make contracts, he is deprived of his property within the meaning of the constitution.

The right to contract is the only way by which a person can rightfully acquire property by his own labor. This right to contract, which is thus included in the fundamental rights of liberty and property, can not be taken away without "due process of law." The words "due process of law" have been held to be synonymous with the words "law of the land." The "law of the land" is general public law, binding upon all members of the community, under all circumstances, and not partial or private laws, affecting the rights of private individuals or classes of individuals. The legislature has no right to deprive one class of persons of privileges allowed to other persons under like conditions. If one man is denied the right to contract as he has hitherto done under the law, and as others are still allowed to do by the law, he is deprived of both liberty and property to the extent to which he is thus deprived of the right. Applying these principles to the consideration of section 5 we are led irresistibly to the conclusion that it is an unconstitutional and void enactment.

It is claimed that this section can be sustained as an exercise of the police power of the State. The police power of the State is that power which enables it to promote the health, comfort, safety, and welfare of society. It is very broad and far-reaching, but is not without its limitations. Legislative acts passed in pursuance of it must not be in conflict with the constitution, and must have some relation to the ends sought to be accomplished; that is to say, to the comfort, welfare, or safety of society. When the ostensible object of an enactment is to secure the public comfort, welfare, or safety it must appear to be adapted to that end. There is nothing in the title of the act of 1893 to indicate that it is a sanitary measure. There is nothing in the nature of the employment contemplated by the act which is in itself unhealthy or unlawful or injurious to the public morals or welfare. It is not the nature of things done, but the sex of the persons doing them, which is made the basis of the claim that the act is a measure for the promotion of the public health. It is sought to sustain the act as an exercise of the police power upon the alleged ground that it is designed to protect woman on account of her sex and physique. But inasmuch as sex is no bar under the constitution and law to the endowment of woman with the fundamental and inalienable rights of liberty and property, which includes the right to make her own contracts, the mere fact of sex will not justify the legislature in putting forth the police power of the State for the purpose of limiting her exercise of those rights, unless the courts are able to see that there is some fair, just, and reasonable connection between such limitation and the public health, safety, or welfare proposed to be secured by it.

We can not more appropriately close the discussion of this branch of the case than by quoting and adopting as our own the following words of the New York court of appeals in re Jacobs (98 N. Y., 98): "When a health law is challenged in the courts as unconstitutional, on the ground that it arbitrarily interferes with personal liberty and private property, without due process of law, the courts must be able to see that it has at least in fact some relation to the public health, that the public health *is the end actually* aimed at, and that it is appropri-

The legislature of the State of Missouri, by ac
1893, made it unlawful for an employer to prohil
joining any labor or trade union, or other lawful or
or to require an employee to withdraw therefrom.

Under this act George Julow, who had discharg
hired for a definite term, because he would not wit
organization, was convicted in the St. Louis court o
and fined $50. He appealed to the supreme court
reversed the judgment of the lower tribunal, by d
1895, and declared the law under which he wa
unconstitutional. The substance of the decision of
delivered by Judge Sherwood, which is published i
first volume of the Southwestern Reporter, page 781.

The act of March 6, 1893, in making it unlawful
prohibit an employee from joining or to require an
draw from a trade or labor union or other lawful org
the fifth amendment to the Constitution of the U
article 2, section 30, of the constitution of the Sta
that no person shall be deprived of life, liberty, or
due process of law. These terms, "life," "liberty,
are representative terms, and cover every right to v
the body politic is entitled under the law, and all our
civil, and political—in short, all that makes life wo
none of these rights or liberties can anyone be depri
process of law.

Each of the rights heretofore mentioned carries wit
and necessary coincident, all that effectuates and re
full, unrestrained enjoyment of that right.

Take, for instance, that of

the power of the legislature to do this, and consequently
at the statute which professes to exert such a power is noth-
or less than a "legislative judgment," and an attempt to
who are included within its terms of a constitutional right
e process of law. But the statute is also obnoxious to criti-
her grounds. It does not relate to persons or things as a
ll workmen, etc.—but only to those who belong to some "law-
ation or society," referring to a trade union, labor union, etc.
tatute does this it is a special, as contradistinguished from a
. Here a nontrades-union or a nonlabor-union man could be
without ceremony, without let or hindrance, whenever the
o desired, with or without reason therefor, while in the case
union or labor-union man he could not be discharged if such
rested on the ground of his being a member of such an organ-
n other words, the legislature have undertaken to limit the
he owner or employer as to his right of contract with partic-
s of a class; the statute which does this is a special, not a
, and therefore is in violation of the State constitution.
ute is also in conflict with section 1, article 14, of the Consti-
he United States, forbidding that "any State deprive any
ife, liberty, or property without due process of law."
the statute escape censure by assuming the label of a "police
" It has none of the elements or attributes which pertain
egulation, for it does not, in terms or by implication, pro-
d to promote the public health, welfare, comfort, or safety;
id, the State would not be allowed, under the guise and pre-
police regulation, to encroach or trample upon any of the
of the citizen, which the Constitution intended to secure
ninution or abridgment.

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tion by Thomas Durkin against the Kingston Coal Company
m Jones, damages were recovered in the court of common
erne County, Pa., by the plaintiff for injuries received while
employee in the coal mine of which the defendant company
and defendant Jones was certified foreman, through the
of the foreman. The defendants appealed, and the supreme
ennsylvania, on October 7, 1895, reversed the judgment as
l company, holding that the act of 1891, of Pennsylvania,
anthracite coal mines (P. L., p. 176) is unconstitutional and
far as it makes the owner of such mine liable for injuries
nployees occasioned by the negligence of a mine foreman,
ertified, and employed under the requirements of the stat-
judgment was, however, affirmed as to Jones, the mine fore-
was held to be liable, independently of, as well as under, the
injury to an employee due to his want of attention to his
ies.

sion in this case, delivered by Judge Williams, is published
33 of the Atlantic Reporter, page 237, and so much thereof
n the constitutionality of the law in question, and on the
ity of the mine foreman, is given here:

article of *the constitution* of this State, known as the "bill
declares that all men are possessed of certain inherent and

inalienable rights. One of these is the right to acquire, possess, and protect property. The preservation of this right requires, both that every man should be answerable for his own acts and engagements, and that no man should be required to answer for the acts and engagements of strangers over whom he has no control. A statute that should impose such a liability, or that should take the property of one person and give it to another or to the public without making just compensation therefor, would violate the bill of rights, and would be, for that reason, unconstitutional and void.

It is in furtherance of the right to acquire, possess, and protect property that section 17 of the bill of rights prohibits the enactment of laws that shall interfere with or impair the obligation of contracts. The tendency toward class legislation for the protection of particular sorts of labor has been so strong, however, that several statutes have recently been passed that could not be sustained under the provisions of the bill of rights. Such was the case in Godcharles *v.* Wigeman (113 Pa. St., 431 ; 6 Atl., 354); such was the case with some recent provisions relating to mechanics' liens, and such is alleged by the appellants to be the case with some of the provisions of the act of 1891, under which this action was brought. The title of the act of 1891 is "An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania and for the protection and preservation of property connected therewith." It divides the anthracite region into eight districts, and provides for the appointment by the governor of a competent mine inspector in each district, who shall have a general oversight of mining operations within his district. It creates an examining board for each district, with power to examine candidates, and recommend such as they shall deem qualified for the position of mine foreman to the secretary of internal affairs. It is made the duty of this officer to issue certificates to those who apply therefor and have been recommended by the board of examiners.

Article 8, section 1, declares that no person "shall be permitted to act as mine foreman or assistant mine foreman of any coal mines or colliery" who has not been examined by the board of examiners, recommended to the secretary of internal affairs, and provided by that officer with a certificate. The employment of a certified mine foreman is made obligatory upon all mine owners and operators, and a failure to do so is punished by a fine of $20 per day, which may be collected from the owner, the operator, or the superintendent in charge of the mine. The duties of the mine foreman are prescribed by the act, and the owner or operator of the mine can not interfere with them. He is especially to "visit and examine every working place in the mine at least once every alternate day while the men of such place are or should be at work, and direct that each and every working place is properly secured by props or timber, and that safety in all respects is assured by directing that all loose coal or rock shall be pulled down or secured, and that no person shall be permitted to work in an unsafe place unless it be for the purpose of making it secure." (Article 12, rule 12.)

The mine foreman is also required to examine, at least once every day, "all slopes, shafts, main roads, ways, signal apparatus, pulleys, and timbering, and see that they are in safe and efficient working condition." (Rule 13.)

After having thus most effectually taken the management of his mining operations out of his hands, and committed it to officers of its own creation, whose employment is made compulsory upon him, the *statute*, in section 8 of article 17, imposes upon the mine owner a lia-

bility for the neglect or incompetency of the men whom he is compelled to employ, in these words: "That for any injury to person or property occasioned by any violation of this act or any failure to comply with its provisions by any mine foreman, a right of action shall accrue to the party injured against said owner or operator for any direct damages he may have sustained thereby; and in case of loss of life by reason of such neglect or failure aforesaid a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost for like recovery of damages for the injury they shall have sustained."

This statute, regarded as a whole, is an extraordinary piece of legislation. Through it, the lawmakers say to the mine owner: "You can not be trusted to manage your own business. Left to yourself, you will not properly care for your own employees. We will determine what you shall do. In order to make it certain that our directions are obeyed, we will set a mine foreman over your mines, with authority to direct the manner in which your operations shall be conducted, and what precautions shall be taken for the safety of your employees. You shall take for this position a man whom we certify to as competent. You shall pay him his salary. What he orders done in your mines you shall pay for. If, notwithstanding our certificate, he turns out to be incompetent or untrustworthy, you shall be responsible for his ignorance or negligence." Under the operation of this statute the mine foreman represents the Commonwealth. The State insists on his employment by the mine owner, and, in the name of the police power, turns over to him the determination of all questions relating to the comfort and the security of the miners, and invests him with the power to compel compliance with his directions. Incredible as it may seem, obedience on the part of the mine owner does not protect him; but, if the mine foreman fails to do properly what the statute directs him to do, the mine owner is declared to be responsible for all the consequences of the incompetency of the representative of the State. This is a strong case of binding the consequences of the fault or folly of one man upon the shoulders of another. This is worse than taxation without representation. It is civil responsibility without blame, and for the fault of another. The same conclusion may be reached by another road.

It has been long settled that a mining boss or foreman is a fellow-servant with the other employees of the same master, engaged in a common business, and that the master is not liable for an injury caused by the negligence of such mining boss. The duty of the mine owner is to employ competent bosses or foremen to direct his operations. When he does this he discharges the full measure of his duty to his employees, and he is not liable for an injury arising from the negligence of the foreman. A vice-principal is one to whom an employer delegates the performance of duties which the law imposes on him, and the employer is responsible because the duty is his own. As to the acts of workmen, and the manner in which they do their work, the duty of the employer is to employ persons who are reasonably competent to do the work assigned them, and, if he finds himself mistaken in regard to their competency, to discharge them when the mistake is discovered. But he is not responsible for the consequences of their negligence as these may affect each other. Now, the act of 1891 undertakes to reverse the settled law upon this subject, and declares that the employer shall be responsible for an injury to an employee resulting from the negligence of a fellow-workman. Prior to the act of 1891, the man whose negligence caused the injury was alone liable to respond in damages. He might not always have *property out* of which a judgment could be

collected, but the plaintiff must, in any case, take his chances of the solvency of the defendant against whom his cause of action lies.

The act of 1891 undertakes to furnish a responsible defendant for the injured person to pursue. Passing over the head of the fellow-servant at whose hands the injury was received, it fastens on the owner of the property on which the accident happened, and declares him to be the guilty person on whose head the consequences of the accident shall fall. To see the true character of this legislation we must keep both lines of objection in mind. We must remember that the injury complained of is due to the negligence of a fellow-workman, for which the master is responsible neither in law nor morals. We must also remember that this fellow-workman has been designated by the State, his duties defined, and his powers conferred by statute, and his employment made compulsory, under heavy penalties, by the same statute. Finally, we must remember that it is the negligence of this fellow-servant, whose competency the State has certified, and whose employment the State has compelled, for which the employer is made liable. The State says: "He is competent. You must employ him. You shall surrender to his control the arrangements for the security of your employees." It then says, in effect: "If we impose upon you by certifying to the competency of an incompetent man, or if the man to whom we commit the conduct of your mines neglects his duty you shall pay for our mistake and for his negligence." We have no doubt that so much, at least, of section 8 of article 17 of the act of 1891 as imposes liability on the mine owner for the failure of the foreman to comply with the provisions of the act which compels his employment and defines his duties, is unconstitutional and void.

But why should the certified mine foreman be relieved from the consequences of his negligence? The jury have found that the injury was due to his want of attention to his proper duties, and his liability is clear, without regard to our mining laws. But the statute required him to examine the roads and ways in use in the mine each day. He knew the film of rock separating the upper from the lower working was but 8 feet thick, at best; he knew that the supports for this film were not in line with each other in the upper and lower workings; he knew that layers of the rock were falling off, that the thickness of the floor was reduced under the way on which the accident occurred to about 5 feet, and that, not far away, it had fallen down into the lower working; yet, with all this knowledge he did nothing, so far as we can learn, to increase the security of the way. Whether his conduct be considered with reference to the statute, or regardless of it, his failure to do what he must have known to be necessary was a neglect of duty such as should render him liable to his fellow servant who has suffered from it. We are not prepared to hold the act of 1891 unconstitutional as a whole. It relates to all anthracite coal mines, and defines what shall be regarded as such mines. Coal may be taken out of the ground by farm owners for their own use, or it may be taken in such small quantities and for such local purposes as to make the application of the mining laws to the operations so conducted not only unnecessary, but burdensome to the extent of absolute prohibition. Such limited or incipient operations are not within the mischief, to remedy which the mining laws were devised. They are ordinarily conducted for the purposes of exploration, or for family supply, and ought not to be classed with operations conducted for the supply of the public. The business of coal mining, like that of insurance or banking, may be defined by the legislature. The definition found in the act of 1891 seems to us reason-

able, to be within the fair limits of a legislative definition, and to exclude only such operations as are too small to make the general regulations provided by the act applicable to them. The ground on which we place our judgment is not, therefore, that the act is local, but that the provisions of it which we have considered are in violation of the bill of rights.

Section 1 of chapter 270 of the acts of 1887 of Massachusetts provides that where personal injury is caused to an employee, who is himself in the exercise of due care and diligence at the time, by reason of the negligence of any person in the service of the employer, entrusted with and exercising superintendence, whose sole or principal duty is that of superintendence, the employee shall have the same right of compensation and remedies against the employer as if the employee had not been an employee of nor in the service of the employer, nor engaged in its work.

Under this act Norman J. Dane sued the Cochran Chemical Company for personal injuries as an employee, the circumstances of his employment having been as follows: The company employed Frederick Johnson, a carpenter, under a continuing contract to make all repairs and alterations required in its works, he to furnish tools and the company the materials, at $2.50 per day for his own services, and 25 cents per day for each man employed by Johnson in addition to the amount of wages which Johnson agreed to pay the man. He hired, paid, superintended, and discharged the men employed by him, but the company directed how the work was to be done. Dane was hired by Johnson, and in the course of his employment received the injuries for which he sought compensation.

The case was decided adversely to Dane by the superior court of Suffolk County, Mass., and having been brought before the supreme judicial court of Massachusetts on exceptions by the plaintiff, the latter tribunal, on October 19, 1895, overruled the exceptions and sustained the decision of the superior court, holding that Dane, having been hired by the carpenter, was an employee of the carpenter and not of the company, and hence could not recover damages for his injuries from the company.

The decision of the supreme judicial court in this case, delivered by Chief Justice Field, is published in full in volume 41 of the Northeastern Reporter, page 678, and is based on the following reasoning:

The fundamental question in the present case is whether the relation between the plaintiff and defendant, as shown by the evidence, was that of employer and employee. Could the plaintiff have recovered his wages of the defendant if they had not been paid by Johnson? Did Johnson hire the plaintiff on his own account or as agent for the defendant? At common law the defendant, on the evidence, would not be liable to the plaintiff, because, if Johnson was a servant of the defendant in hiring the plaintiff and the other workmen, then the plaintiff and Johnson were servants of the defendant, and a master is

not liable, at common law, for the injury to one servant occasioned by the negligence of his fellow servants; and if Johnson was an independent contractor, and Dane was his servant, then the defendant would not be liable for any injury occasioned by the negligence of Johnson or of one of his servants to another of his servants. We are of opinion that the only reasonable inference to be drawn from the evidence in the exceptions is that the plaintiff was an employee of Johnson, and not of the defendant, within the meaning of the statute of 1887, chapter 270, and the amendments thereto.

It does not appear that Johnson was authorized to hire workmen on account of the defendant, or that the workmen hired by Johnson ever understood that they were to be paid by the defendant, or that the defendant or Johnson so understood. The fact that the defendant retained the right to decide how work should be done on its premises does not of itself make the workmen employed by Johnson employees of the defendant. Apparently Johnson employed whom he pleased, and directed the men employed by him in the performance of their work, whether upon the premises of the defendant or upon other premises where he might be doing work. On the evidence we do not think that the jury could properly find that the relation of employee and employer existed between the parties. If the relation of employer and employee did not exist between the parties, then the action can not be maintained under the statute of 1887, chapter 270.

A suit for damages was brought by William A. Perry against the Old Colony Railroad Company to recover damages for injuries received while making repairs on a locomotive engine in a roundhouse, through the alleged negligence of one Straw, an engineer claimed to have been in charge of the locomotive, in blowing down the engine.

He recovered in the superior court of Suffolk County, Mass., under chapter 270 of the acts of 1887 of Massachusets, section 1 of which provides that where personal injury is caused to an employee, who is himself in the exercise of due care and diligence at the time, by reason of the negligence of any person in the service of the employer who has the charge or control of any signal, switch, locomotive engine, in train upon a railroad, the employee shall have the same right of compensation and remedies against the employer as if the employee had not been an employee of nor in the service of the employer, nor engaged or its work. The railroad company carried the case, on exceptions, to the supreme judicial court of the State, and that tribunal, on September 14, 1895, sustained the exceptions, holding that the case was not within the purview of the statute above quoted. The decision, delivered by Judge Morton, is published in volume 41 of the Northeastern Reporter, page 289, and so much thereof as bears on the applicability of the statute to ute to the case is given here:

Even if Straw was negligent in blowing down, which we do not decide, we do not think he had charge or control of a locomotive upon a railroad track, within the meaning of the act. The statute, as it is *said in* Thyng *v.* Fitchburg R. R. Co. (156 Mass., 18; 13 N. E., 169),

"seems chiefly to contemplate the damages from a locomotive engine or train as a moving body, and to provide against the negligence of those who, either wholly or in part, control its movements." This engine was stalled in the roundhouse for repairs, and was not "upon a railroad track," as those words are ordinarily used. The case would be different, perhaps, if it had been standing on a track waiting to be coupled to a train or for some temporary purpose. If the engine had been in the repair shop, no one, we think, would contend that it was upon a railroad track, within the fair meaning of the act. The fact that it was in the roundhouse, instead, where such repairs were made as could be made comfortably, does not, it seems to us, make any difference. It is also a matter of great doubt whether the engine was in the charge or control of Straw. The testimony tended to show that when an engine came into the roundhouse it was generally assigned to a pit, the tender brake set up, and the wheels blocked, and then the engineer went off and the engine was in charge of the train dispatcher, or, as the plaintiff put it, "the engineer had no duties in the roundhouse any more than if he has a little job on his engine to do, he does it," which is far from saying that in the roundhouse he has charge and control of the engine. The blowing down of the engine was in response to an outside suggestion, and might as well have been done by anyone else, for aught that appears. But even if the engine was in charge or control of Straw, that is not sufficient. In order to make the defendant liable, it must also have been upon a railroad track, which we do not think it was.

On November 21, 1894, W. H. Clune, a local officer of the American Railway Union, was convicted, with others, in the United States district court for the southern district of California, of conspiracy to obstruct the passage of the United States mails during the time of the great railway strike in the summer of 1894. Motions for a new trial and in arrest of judgment were overruled, and the defendants were each sentenced to pay a fine of $1 and to be imprisoned in the county jail of Los Angeles County, Cal., for the period of eighteen months. The case was brought before the Supreme Court of the United States on writ of error, which court sustained the conviction by decision of November 15, 1895, as published in volume 16 of the Supreme Court Reporter, page 125.

The principal question of law in the case was raised in the argument, and related to the competency of Congress to impose a heavier penalty for conspiracy to commit a crime than that imposed for the crime itself. On this point Mr. Justice Brewer, in delivering the opinion of the court, said:

By section 3995, Revised Statutes United States, the offense of obstructing the passage of the mails is made punishable by a fine of not more than $100. By section 5440, Revised Statutes United States, a conspiracy to commit any offense against the United States is punishable by a fine of not less than $1,000 nor more than $10,000, and by imprisonment for not more than two years. Upon this he (the counsel for the defendants) contended that a conspiracy to commit an offense

can not be punished more severely than the offense itself, and also that when the principal offense itself is, in fact, committed, the mere conspiracy is merged in it.

The language of the section is plain and not open to doubt. A conspiracy to commit an offense is denounced as itself a separate offense, and the punishment thereof is fixed by the statute, and we know of no lack of power in Congress to thus deal with a conspiracy. Whatever may be thought of the wisdom or propriety of a statute making a conspiracy to do an act punishable more severely than the doing of the act itself, it is a matter to be considered solely by the legislative body. The power exists to separate the conspiracy from the act itself and to affix distinct and independent penalties to each.

With regard to the suggestion that the conspiracy was merged in the completed act, it is enough that we can not, upon the record, hold that the mails were obstructed. All the testimony not being preserved, it may be that the testimony satisfied the jury that there was, in fact, no obstruction of the mails, but only, as charged, a conspiracy to obstruct. If so, the suggestion of a merger falls to the ground.

DECISIONS UNDER COMMON LAW.

The supreme court of Indiana on October 16, 1895, reversed the judgment of the circuit court of Sullivan County in the case of Margaret C. Tohill *v.* Evansville and Terre Haute Railroad Company, and decided that the plaintiff was not entitled to recover damages from the railroad company for the death of her husband, who was killed while in the performance of his duty as an engineer in the employ of the company in a collision between his train, No. 20, which was run as a "regular," and another train, No. 19, which was being run as an "extra," or inferior train.

The supreme court held that the proximate cause of the collision was not in ordering the running of the extra train and failing to notify the deceased engineer of the regular train of the fact, but was the failure of the deceased engineer's fellow-servants in charge of the extra train to comply with the company's rules, by keeping out of the way of the regular train, and hence that the railroad company was not responsible for the accident.

The substance of the decision, delivered by Judge Hackney, which is published in full in volume 41 of the Northeastern Reporter, page 709, is as follows:

We think it may be conceded to be the law that a railroad company, operating a complicated system of trains, is required to provide for the reasonable safety of the operatives of such trains against collisions; that it would not be a compliance with such requirement to direct one train to run by schedule and another to run over the same track without schedule, in conflict with such schedule train and without notice to the schedule trainmen, by rule or otherwise, or without some limitation upon the extra or nonscheduled train, under which it would so run as to guard against collision with the schedule train. There are many authorities to the proposition that it is the duty of a railroad company to use ordinary care and prudence in making and promulgating

reasonably necessary and sufficient rules for the safe running of its trains and for the government of its employees, so as to furnish them a reasonable degree of safety, taking into consideration the nature of the service. But this requirement does not deny the right of railway companies to vary from the time tables in any instance, nor does it mean that every variation involves negligence on the part of the company. From the very nature of the business of carrying on an extensive railway system, trains must be expected to run out of schedule time, some from unavoidable delays and others as extra trains carrying an accumulation of freight and passengers beyond the line of business ordinarily expected and regularly prepared for. As said in the case of Slater *v.* Jewett (85 N. Y., 61), "it is at times a necessity to do so, and a necessity so frequent as to fall within the occurrences that a railway servant is bound to expect in the course of his employment. Even as regards the public and passengers, a railway manager has a right, when needs press, to vary from his general time-table. All that can then be required from him by the public and passengers is that, when he makes a variation, he act under it with reasonable care and diligence."

This is all that a servant could ask or expect. If, therefore, in the present case, the company made and promulgated such rules as, by their faithful observance, secured reasonable safety to operatives of schedule trains against collision with extra trains, the company must be held to have performed its duty in this respect. The special verdict in this case expressly found that the company maintained rules under which regular trains might be converted into extra trains; that trains of an inferior class should clear the right of way for trains of a superior class by taking a side track at least five minutes before the arrival of any schedule train at the last station to which it was safe for such inferior train to run; that No. 19 [the extra train] wholly failed to act in accordance with said rules, and did not take the side track at Pursell, where No. 20 [the regular train] could have passed in safety, but continued beyond said station to where the collision occurred. Thus it appears that obedience to said rules by No. 19 [the extra train] would have made the passage of No. 20 [the regular train], running by the schedule, entirely safe. A rule easily followed by servants, and when followed securing safety to coservants, is a reasonable compliance with the duty owing by the master to his servants upon this question. As held in Rose *v.* Railway Company (58 N. Y., 217), obedience to the regulations of a railway company in regard to the running of trains is a matter of executive detail, which neither the corporation nor any general agent can personally oversee, but as to which employees must be relied on. If those employees fail in their duty by breaking existing regulations, and in consequence other employees are injured, no action can be maintained for the injury, as it will be deemed to have been caused by the negligence of a fellow-servant.

As we have seen, the negligence of those in charge of No. 19 [the extra train] was the proximate cause of the collision, and the order of the train dispatcher was not negligently issued. That the operatives of No. 19 [the extra train] were the fellow-servants of the unfortunate engineer is not questioned by the appellee's counsel, but is conceded.

That injury resulting from the negligent act of a fellow-servant creates no liability against the master is not only well settled, but is conceded also by appellee's counsel. It was error, therefore, to deny the appellant's motion for judgment upon the special verdict. The judgment is reversed.

The supreme court of Michigan decided on October 22, 1895, in the case of Shackleton *v.* Manistee and Northeastern Railroad Company (reported in volume 64 of the Northwestern Reporter, page 728) that, under the conditions of the case, the railroad company was not answerable for the death of an employee who, while in the discharge of his duty, was thrown from a way car and killed, by reason of the absence of a hand railing, which had been removed from the car. The circumstances of the case are set forth in the opinion of the court, delivered by Judge Montgomery, which is as follows:

The plaintiff, as administratrix, sues to recover damages for the death of her husband, alleged to have been caused by the defendant's negligence. The deceased was a conductor on a freight train of the defendant company, and the injuries resulting in his death were caused by his being thrown off the rear end of the way car to the track and the train passing over him. The car from which he was thrown had hand rails provided on either side of the steps, the rear hand rail extending to the brake, so that a sudden lurch of the car would not result in throwing one attempting to alight from the car. On the occasion in question, however, this rear hand rail had been removed, and the testimony offered by the plaintiff tends to show that while deceased was stepping down from the car he was thrown off by reason of this defect. There is no room for attributing any negligence to the defendant, unless it be for the absence of the hand rail at this time. A few days before the accident deceased and his trainmen, when using the way car in question, allowed it to run against a car loaded with logs, which extended over the ends of the car on which they were loaded, so that, coming in contact with the hand rail, they bent it nearly against the side of the car. Deceased thereupon called the attention of a workman in the defendant's repair shops to the hand rail, and asked him to take it off and repair it. The workman replied "All right," and took it off. Deceased then started off with the car, without reporting the defect to the superintendent, as required by the rules of the company, and without making any objection to using the defective car to those in authority, or to anyone connected with the defendant in any way. While on his trip that day the assistant superintendent saw the car and said to the deceased, "You want to see that that is fixed. Get it fixed." Deceased again called the attention of the workman in the repair shop to it, and he again promised to fix it, but neglected to do so. Deceased, however, continued in the use of the car without protest, until he was killed in the manner above described.

The plaintiff's counsel recognize the general rule that the servant who engages in the use of, or continues in the use of, defective machinery or appliances, assumes the risk incident to the employment—but seeks to bring this case within the exception to the rule which obtains in case the servant has been induced to continue the use of the defective appliances by reason of the master's promise to repair. The present case is not within any such exception to the rule. No one representing the master had induced deceased to continue in the use of the car in its then condition. The employee in the car-repair shop certainly gave deceased no such directions. On the contrary, he was acting under instructions received from the deceased. The statement of the assistant superintendent, so far from being authority to continue the use of the car, was more in the nature of a rebuke for using it in its then condition. The most that can be said is that the company might have been

negligent in not repairing the car sooner, but such negligence was open to the observation of the deceased, and he saw fit to continue in the use of the car. He made no objection to using it in its crippled condition; he gave no notice to anyone in authority which would indicate to defendant that he refused to take the risk, which was as apparent to him as to anyone connected with the road. The circuit judge was right in directing a verdict for the defendant.

A question of great interest, and one which has rarely been judicially passed upon, recently arose in the case of William Mattison *v.* The Lake Shore and Michigan Southern Railway Company, before the court of common pleas of Lucas County, Ohio.

The case involved the right of a discharged employee, who had been blacklisted by his former employer, to recover pecuniary damages for the injury suffered by him by reason of the blacklisting.

The facts in the case were substantially as follows: Mattison had been employed by the railway company as a conductor, at wages of $120 per month, and he declared in his petition that, having been appointed as a representative of other workmen, he made objection to certain rules adopted by the defendant company and "by all other trunk-line railroads in the United States," designated as "blacklist rules." Shortly after having made such objection, he was discharged from the service of the company, "without cause or provocation," and the company thereupon, conspiring with other railroad companies in order to prevent him from securing employment in his chosen avocation, caused the said blacklist rules to be enforced against him, thus preventing him from obtaining such employment. He was compelled to seek work elsewhere, and secured employment as a policeman, but as such had only been able to earn $720 per year, instead of $1,440 per year, which he had received as a railroad conductor.

The company demurred to Mattison's complaint, and the question arose as to whether the blacklist, resulting in injury to an innocent discharged employee, is a wrong for which such employee can obtain financial redress.

Judge Pratt, on September 25, 1895, sustained the right of Mattison to sue the company for damages. The report of the case, furnished the Department of Labor by the official stenographer of the court, shows the substance of the opinion to be as follows:

The employee's right to employment is equally sacred with the right of the employer to employ him; it is not only a serious right, affecting a man's life, but you may say that it is his life. The laboring man's employment is the only thing that stands between him and starvation, or what is little less than starvation—pauperism—and it is for the public interest and for the public good that the right of a man to his own employment, in any honest work which he may seek, should not be interfered with or violated.

This, of course, does not meddle at all with the right of a company, or of a man, to judge himself who he will have to work for him; and it makes no difference whether he refuses to let a man work for him because he is incompetent or because he dislikes him. He has a right to seek his own employees, but, as is frequently said, one man's right ends where another man's commences, and the right of the employer to discharge ends with his own employment, and he must not trench upon the right of the employee to seek other employment by which he may support himself and his family, and it is for the public interest that the largest liberty to seek employment should be before every man, whatever may be his employment or whatever may be his business, trade, or occupation. It is also a matter of public interest to encourage men in becoming proficient in their employment. It is, of course, a matter of public policy that a railroad company should have the right to employ such men as it sees fit and to judge for itself of the competency of its employees. There is no doubt about that. It is, however, for the public interest that a man who is skilled and who has become proficient in his employment should be able to find employment, if not with one railroad, with another railroad, or some other railroad—at least that the field should be open to him, that he should have that right; and while a railroad company may discharge its men and not employ them themselves, they trench upon the rights of the employees whenever they, by one deed or another, seek to prevent their employees from getting employment of other railroad companies, or combine or conspire in any way to prevent it, as is charged in this petition, and the matters alleged in the petition are, on demurrer, to be taken as confessed.

Of course there may be an injury that is not a legal injury resulting from a company discharging one of its employees, and so long as they simply discharge him their right to make the discharge should not be questioned; but if they make a combination, as is charged in this petition, with other companies that they shall not employ him, then it seems to me they go beyond their legal right.

The matters alleged here are sufficient to constitute a cause of action against the defendant, and the demurrer will therefore be overruled.

EXTRACT RELATING TO LABOR FROM THE NEW CONSTITUTION OF UTAH.

By act of Congress approved July 16, 1894, it was provided that the people of the Territory of Utah might call a convention to form a constitution and do other necessary things toward their becoming a State of the Union. This convention assembled in Salt Lake City March 4, 1895, and continued in session until May 8, 1895. It framed a State constitution, which was submitted to the voters of the Territory at an election held November 5, 1895, and was by them adopted. The only further action needed to constitute Utah a sovereign State of the nation was the issue by the President of the usual, formal proclamation to that effect which took place Saturday, January 4, 1896.

The following is a copy of Article XVI, relating to labor:

SECTION 1. The rights of labor shall have just protection through laws calculated to promote the industrial welfare of the State.

SEC. 2. The legislature shall provide by law for a board of labor, conciliation, and arbitration, which shall fairly represent the interests of both capital and labor. The board shall perform duties and receive compensation as prescribed by law.

SEC. 3. The legislature shall prohibit:

First. The employment of women or of children under the age of 14 years in underground mines.

Second. The contracting of convict labor.

Third. The labor of convicts outside prison grounds, except on public works under the direct control of the State.

Fourth. The political and commercial control of employees.

SEC. 4. The exchange of black lists by railroad companies or other corporations, associations, or persons is prohibited.

SEC. 5. The right of action to recover damages for injuries resulting in death shall never be abrogated, and the amount recoverable shall not be subject to any statutory limitation.

SEC. 6. Eight hours shall constitute a day's work on all works or undertakings carried on or aided by the State, county, or municipal governments, and the legislature shall pass laws to provide for the health and safety of employees in factories, smelters, and mines.

SEC. 7. The legislature, by appropriate legislation, shall provide for the enforcement of the provisions of this article.

NOTE REGARDING BUREAUS OF STATISTICS OF LABOR.

The following minor emendations are offered to the table relating to dates of establishment, etc., of bureaus of labor statistics printed on pages 110 and 111 of Bulletin No. 1:

MARYLAND.—February 25, 1892, a new organic act relating to this bureau was passed in which, in addition to ordinary labor statistics, provision was made for gathering statistics of agriculture, mining, transportation by railroad and other means, and of shipping and commerce. Also that reports should be made annually instead of biennially as heretofore. The new bureau is known officially as the Bureau of Industrial Statistics.

CONNECTICUT.—During the existence of the original bureau (July 12, 1873, to July 23, 1875) two annual reports were made, instead of one as stated in Bulletin No. 1, one in May, 1874, and one in May, 1875.

BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 3—MARCH, 1896.

ISSUED EVERY OTHER MONTH.

EDITED BY

CARROLL D. WRIGHT,
COMMISSIONER.

OREN W. WEAVER,
CHIEF CLERK.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1896.

CONTENTS.

BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 3. WASHINGTON. MARCH, 1896.

EDITORIAL NOTE.

During the past two or three years a statement purporting to give the relation of wages to cost of production, or the proportion of labor cost to the whole cost, has been going the rounds of the press. This statement has generally been in the following form:

Mr. Carroll D. Wright, the national labor statistician, has figured out that the average rate of wages per year paid in the United States is $347, and the average product of each laborer is valued at $1,888. This gives the employer 82.2 per cent, while the man who does the work and produces the results is allowed a paltry 17.8 per cent. In spite of our boasted free country and high wages, the fact remains that the proportion of the proceeds of his labor paid to the American workingman is smaller by far than that paid to any other workingman in any civilized or uncivilized country on the globe.

Sometimes the article varies in its statement, both in percentages quoted and in other essential features, but usually conforms very closely to the foregoing extract, which has been taken literally from one of the newspapers in which it appeared. The prominence given to this statement warrants its notice in the Bulletin. Ordinarily it is not our purpose to use its pages for current items, but the figures quoted and the statement that they are upon the authority of the Commissioner of Labor make this case an exception. The figures themselves are in the main correct; they relate more particularly to the census of 1880 than to any other collection of data. An analysis of the figures and the facts underlying them shows the fallacy of the conclusion drawn from them.

If the aggregate wages paid in the manufacturing and mechanical industries of the United States, as shown by the census of 1880, be divided by the total number of employees to whom the wages were

paid, the quotient will be 347, thus determining the average wages paid to the employees in the manufacturing and mechanical industries of the country as $347. Dividing the aggregate value of all the products of manufacturing and mechanical industries by the number of employees engaged therein, the quotient is 1,965, showing that the average product per employee was $1,965. Now, $347 is 17.7 per cent of the gross value of the per capita product, as stated, leaving a balance, of course, of 82.3 per cent, or $1,618, which the originator of the statement quoted above assumes goes to the employer. The 82.3 per cent of the total product, or $1,618 per capita, covers all expenses of production, cost of materials, miscellaneous items, profit, deterioration, interest—everything, in fact, which can be counted as cost of production other than wages. Taking the Eleventh Census—that for 1890—it is found that the value of the gross product per capita for the number of employees engaged in manufacturing and mechanical industries was $2,204, and the average annual wages per employee, computed for 1890 as already computed for 1880, was $445. The writer of the statement quoted above would assume, for the Eleventh Census, that while $445 was paid to labor, $1,759 went to the employer. As a matter of fact, of the total product per capita, 20.18 per cent went to labor, 55.08 per cent for materials, and 24.74 per cent to miscellaneous expenses, salaries, interest, profits, etc.

All statements like that quoted above are fallacious in their application. While the figures in themselves are in the main fairly correct, and the percentages so, the balance, or 82.2 per cent, does not go to the employer, but, as shown, largely for raw materials; and of the amount paid for raw materials the bulk goes to labor for their production. That the statement emanates from the Commissioner of Labor is an assumption without any authority. From what sources the comparison with workingmen of other countries is secured is not known, but the concluding statement in the quoted article is undoubtedly as fallacious as the one which gives to the employer 82.2 per cent of the value of the product.

C. D. W.

INDUSTRIAL COMMUNITIES.(a)

BY W. F. WILLOUGHBY.

CHAPTER I.

INTRODUCTION.

The growth of the large industry and the creation of special industrial centers constitute two of the most marked industrial changes of recent years. They are the last steps in the evolution of the factory system from the régime of individual handicraft production. This has necessitated the aggregation in one center of large numbers of workingmen, who, with their families, are dependent upon a single industry, and this in turn has given rise to conditions and problems peculiar to such places. The present study deals with the results of an investigation into the conditions of labor and industry in those special industrial centers where a large number of workingmen have been brought together in one place, all dependent upon a single large establishment, and under such conditions as to constitute more or less self-contained communities.

The town of Essen, Germany, the seat of the great iron and steel works of Friedrich Krupp, is the best and most widely known example of this class of industrial communities in Europe. Essen has therefore been taken as the type of communities to be investigated, and the effort has been made to consider all the industrial centers of importance closely approaching it in character.

Inevitably in such centers there have developed systems of special institutions that give to each a special life and character of its own. It has been thought a matter of importance to determine as far as possible what changes have here been introduced into the organization of industry, and the results, beneficial or otherwise, to which they have given rise.

The most important of these results is the enormous development of common interests. Greater interdependence of interests, both between the workingmen themselves and between the workingmen and their employers, is the fundamental result of all recent industrial changes.

a This article is the first of a series upon this subject to be published in successive numbers of the Bulletin. Each article will be complete in itself, giving the results of the investigation as to one or more communities. The investigation was made by the author during personal visits to the several communities dealt with. The author desires to express his sense of obligation to the officials of the companies whose operations furnish the subject-matter of these articles for their courteous assistance, which alone has rendered *the study possible.*

many years as possible. There is thus afforded an opportunity for a statistical comparison of the conditions of the same body of men where the general and physical conditions are the same throughout the period under comparison.

The second feature to which attention is directed is that of the stability of employment. The inability of the workingman at times to find employment is one of the greatest hardships that he has to endure. If the growth of the large industry has the tendency to stability of employment as well as of production, there can be no doubt that its development has rendered a vast service, in this respect, for the improvement of the general condition of wage earners.

It is advisable at this point to state the reasons for the selection in each particular case of the centers that have been investigated. Especial prominence has been given to the coal-mining industry, for reasons that are obvious. Mining occupies a unique position in the industrial world. The location of the mines in the open fields renders the creation of special industrial centers in most cases a necessity. Again, the fact that mining has been, and in all probability will continue to be, carried on during successive generations at the same place, differentiates it widely from manufacturing, strictly speaking. The result of this is that there tends to grow up around the mines a class of workingmen among whom the pursuit of mining is almost hereditary. A condition of affairs is created where workingmen enter the employ of the mining companies as boys, succeeding their fathers, remain until incapacitated for work through sickness or old age, and are succeeded in turn by their children. The miners are thus almost exclusively recruited from among the surrounding population, and may almost be deemed to have acquired prescriptive rights in the premises, as far as the right of employment is concerned.

To represent this industry, therefore, the two important mining companies of Anzin and Blanzy, the one in northern and the other in southeastern France, have been chosen as the subjects of Chapters II and III, respectively. The reasons dictating their particular selection were that they were the largest mining companies of France, and among the largest in Europe, employing together over 20,000 men; that they have had a continuous existence, the one over one hundred and the other over fifty years; and, more important than all, the character of the workingmen's institutions that have developed there renders them especially valuable places for investigation.

It is scarcely necessary to state the reasons for the selection of Essen, Germany, to which Chapter IV is devoted. Essen is the seat of the great iron works of Friedrich Krupp, giving employment to over 25,000 workingmen, with institutions there organized for the welfare of the workingmen that have earned a world-wide reputation. So firmly is this establishment founded that it presents almost the same elements of stability as those offered by mining companies.

The town of Guise, France, the subject of Chapter V, was selected

because it is an example of a purely self-contained community. It is worthy of study, both as being the most successful example of an industry carried on as an absolutely cooperative enterprise, and as being a most remarkable effort to put into practice many of the essential features of a socialistic régime. Whatever the opinion of the reader may be regarding the principles involved, the mechanism by which the employees were enabled to acquire the ownership of the plant in which they labored, without entailing the slightest pecuniary sacrifice on the part of its owner, their former employer, the method devised for the conduct of the business on principles of strict mutuality, and the means adopted for preventing the ownership of the property from getting into the hands of outsiders, are worthy of the closest study, especially as the scheme has now been in successful operation over fifteen years.

The study of the mining company of Mariemont and Bascoup, in Belgium, to which a part of the final chapter (VI) is devoted, is useful on account of the opportunity afforded of presenting the results of two extremely interesting workingmen's institutions, viz, that of the councils of conciliation and arbitration, organized by the company, and that of the system of old age and invalidity pension funds, which is not peculiar to this one company, but pertains generally to all coal-mining companies in Belgium.

The concluding chapter also gives an account of a number of other industrial villages, which, while not of sufficient importance to warrant detailed descriptions, should yet be accorded brief mention.

The method of investigation pursued has been that of selecting particular places and making in each case a detailed study of the conditions of labor as they exist there. The advantages of this monographic method are evident. In this way only is it possible to investigate in detail all the various elements going to influence the conditions of life and labor surrounding the workingmen; and the subject of this study is the influence that the method of organization of industry, existing in each place selected, has upon the whole life of the individual.

Again, a study of workingmen's institutions to be of value requires an examination of concrete examples of such institutions, their constitutions, organization, and results of operation during a series of years.

It would be a matter of considerable value if exact statistical comparisons could be made of conditions in these special communities with those under the ordinary conditions of production. It is manifest, however, that exterior conditions can not be established with sufficient exactness to make the application of the strict statistical method feasible. This does not, however, prevent the student, after making a study of all the elements entering into the life of the workingmen in the communities described, from making a comparison with conditions as he knows them to exist elsewhere. Such a comparison, if the subtle conditions of the problem are considered, will be of more value than any that could be made by the mere juxtaposition of figures.

CHAPTER II.

COAL MINING COMPANY OF ANZIN, FRANCE.

No industry offers better opportunities for the study of the conditions of labor and industry in the special industrial communities of the nature comprehended within the scope of the present report than that of the mining of coal. The industry is at once one of the most important in America or Europe; one that must be carried on on a large scale, and one the conditions surrounding the conduct of which require the aggregation of a great many workingmen and their families in special industrial communities. Two of the most important mining companies of Europe have, therefore, been selected for a detailed study, that of Anzin in northern and Blanzy in southeastern France. A study of these centers affords a knowledge, not only of the conditions of labor in two particular places where the community of interests of the entire population is as marked as in any on the continent, but of the conditions generally under which coal is mined.

In France the mining of coal is carried on under concessions granted by the central Government, and is under the direct control of its corps of mining engineers. In 1893, the last year for which official figures are obtainable, there were 298 concessions under which operations were actually prosecuted. It must be understood, however, that the same company often possesses a number of concessions of territory. The following table will show the general importance of the coal-mining industry in France during recent years:

PRODUCTION OF COAL AND EMPLOYEES OF COAL MINES IN FRANCE, 1870 TO 1893.

Year.	Production (tons of 2204.6 lbs.).	Total employees.	Year.	Production (tons of 2204.6 lbs.).	Total employees.	Year.	Production (tons of 2204.6 lbs.).	Total employees.
1870	13,330,000	82,700	1878	16,961,000	106,400	1886	19,910,000	102,400
1871	13,259,000	83,600	1879	17,111,000	102,500	1887	21,288,000	103,200
1872	15,803,000	91,900	1880	19,362,000	107,200	1888	22,603,000	105,000
1873	17,479,000	105,500	1881	19,776,000	106,400	1889	24,304,000	110,900
1874	16,908,000	106,300	1882	20,604,000	108,300	1890	26,083,000	121,600
1875	16,957,000	108,700	1883	21,334,000	113,000	1891	26,025,000	131,800
1876	17,101,000	110,800	1884	20,024,000	109,400	1892	26,179,000	133,200
1877	16,805,000	108,900	1885	19,511,000	101,600	1893	25,651,000	132,600

Though coal was mined in 1893 in 41 departments, seven departments produced nine-tenths, and of these the two adjoining departments of the Nord and Pas-de-Calais, in the north of France, produced considerably over one-half of the total quantity mined. The mines of the

Coal Mining Company of Anzin are situated in the former of these two departments in the arrondissement of Valenciennes. The company is the most important coal-mining company in France. Alone it produced in 1893 over three-fifths of the coal mined in its department, and one-ninth of the total output for the whole country. The first search for coal in this region was commenced in 1716 by prospectors, who afterwards organized the company of Anzin. Coal was discovered in 1720. The organization of the present company of Anzin, however, was not effected until November 19, 1757. Since that date its existence has been continuous. The following table, giving its annual production since 1757, shows its progress in importance. The figures for the years prior to 1789 represent approximations or estimates based on various data.

PRODUCTION OF COAL OF THE COAL MINING COMPANY OF ANZIN, 1757 TO 1893.

Year.	Production (tons of 2204.6 lbs.).	Year.	Production (tons of 2204.6 lbs.).	Year.	Production (tons of 2204.6 lbs.).	Year.	Production (tons of 2204.6 lbs.).	Year.	Production (tons of 2204.6 lbs.).	Year.	Production (tons of 2204.6 lbs.).
1757..	102, 000	1780.	238, 000	1803.	229, 443	1826.	376, 986	1849.	614, 900	1872.	2, 196, 435
1758..	101, 000	1781.	238, 500	1804.	208, 382	1827.	400, 668	1850.	669, 999	1873.	2, 191, 500
1759..	103, 000	1782.	239, 000	1805.	225, 813	1828.	406, 593	1851.	648, 062	1874.	1, 922, 037
1760..	110, 000	1783.	240, 000	1806.	230, 693	1829.	410, 632	1852.	705, 633	1875.	2, 058, 558
1761..	119, 000	1784.	245, 000	1807.	194, 188	1830.	508, 708	1853.	803, 812	1876.	2, 063, 931
1762..	128, 000	1785.	252, 000	1808.	252, 106	1831.	460, 864	1854.	856, 295	1877.	2, 042, 035
1763..	135, 000	1786.	260, 000	1809.	260, 202	1832.	472, 959	1855.	947, 936	1878.	1, 979, 454
1764..	146, 000	1787.	272, 000	1810.	279, 865	1833.	541, 504	1856.	920, 574	1879.	1, 980, 934
1765..	152, 000	1788.	280, 000	1811.	268, 815	1834.	573, 239	1857.	919, 187	1880.	2, 314, 008
1766..	160, 000	1789.	290, 000	1812.	245, 092	1835.	591, 836	1858.	950, 889	1881.	2, 264, 955
1767..	165, 000	1790.	310, 000	1813.	289, 840	1836.	623, 546	1859.	907, 543	1882.	2, 215, 611
1768..	178, 000	1791.	291, 000	1814.	233, 023	1837.	651, 511	1860.	930, 700	1883.	2, 210, 702
1769..	180, 000	1792.	275, 500	1815.	247, 404	1838.	659, 644	1861.	958, 610	1884.	1, 720, 306
1770..	175, 000	1793.	80, 000	1816.	250, 044	1839.	707, 748	1862.	993, 950	1885.	2, 070, 442
1771..	183, 000	1794.	65, 000	1817.	226, 856	1840.	623, 312	1863.	1, 053, 334	1886.	2, 337, 439
1772..	190, 000	1795.	123, 600	1818.	334, 482	1841.	643, 623	1864.	1, 067, 017	1887.	2, 504, 412
1773..	202, 000	1796.	138, 631	1819.	323, 947	1842.	721, 030	1865.	1, 225, 425	1888.	2, 595, 581
1774..	210, 000	1797.	184, 791	1820.	330, 189	1843.	642, 280	1866.	1, 348, 812	1889.	2, 857, 663
1775..	220, 000	1798.	213, 540	1821.	353, 783	1844.	597, 953	1867.	1, 441, 002	1890.	3, 121, 552
1776..	225, 000	1799.	248, 076	1822.	340, 489	1845.	714, 755	1868.	1, 617, 621	1891.	2, 933, 724
1777..	234, 000	1800.	213, 840	1823.	318, 570	1846.	803, 804	1869.	1, 606, 075	1892.	2, 818, 529
1778..	236, 000	1801.	203, 264	1824.	327, 327	1847.	774, 896	1870.	1, 633, 818	1893.	2, 975, 691
1779..	237, 500	1802.	216, 274	1825.	358, 457	1848.	618, 502	1871.	1, 715, 878		

The company has also established several collateral industries that, from their nature, can be carried on in connection with the mining of coal. It thus possesses 340 coke furnaces; three factories for the manufacture of bricks of compressed coal dust; a private railroad 37 kilometers (22.99 miles) long, which is used not only for the transportation of coal, but is also operated as a public road for the conveyance of passengers and freight; a special shop for the repair of cars; another for that of locomotives; a workshop for mechanical constructions; a foundry and boiler shop for the construction as well as the repair of machines used in their works, and various woodworking shops.

The total number of employees during the remoter periods can not be given with the same accuracy and completeness. According to various authorities the number of employees was estimated to be in 1783, *3,110*; in 1789 and 1790, 4,000; in 1848, 6,879; in 1850, 8,000, and in *1860, 8,590*. The following table shows the total number of employees each year from 1870 to *1894, inclusive*, according to whether they were

engaged in the operations of mining proper or in the other collateral services of the company:

EMPLOYEES OF THE COAL MINING COMPANY OF ANZIN ENGAGED IN COAL MINING AND OTHER INDUSTRIES, 1870 TO 1894.

Year.	Mining proper.			Other.	Total.	Year.	Mining proper.			Other.	Total.
	Above ground.	Below ground.	Total.				Above ground.	Below ground.	Total.		
1870..	968	8,165	9,133	.....	.....	1883.	1,738	10,117	11,855	2,181	14,036
1871..	1,102	8,481	9,583	.....	.....	1884.	1,381	8,860	10,241	1,770	12,011
1872..	1,293	9,290	10,583	.....	.....	1885.	1,525	8,103	9,628	1,629	11,257
1873..	1,584	9,933	11,517	.....	.....	1886.	1,529	8,182	9,711	1,689	11,400
1874..	1,687	10,300	11,987	.....	.....	1887.	1,488	8,269	9,757	1,643	11,400
1875..	1,637	10,649	12,286	.....	.....	1888.	1,506	8,241	9,747	1,734	11,481
1876..	1,800	10,900	12,700	.....	.....	1889.	1,516	8,433	9,949	1,862	11,811
1877..	1,807	11,074	12,881	.....	.....	1890.	1,564	9,031	10,595	1,814	12,409
1878..	1,830	11,085	12,915	.....	.....	1891.	1,581	9,221	10,802	1,927	12,729
1879..	1,988	11,013	13,001	2,203	15,204	1892.	1,588	9,048	10,636	2,030	12,666
1880..	1,956	10,814	12,770	2,558	15,328	1893.	1,620	9,029	10,649	2,049	12,698
1881..	1,873	10,978	12,851	2,502	15,353	1894.	1,577	9,098	10,675	1,929	12,604
1882..	1,796	10,407	12,203	2,291	14,494						

The following table gives for the years 1883 to 1892, inclusive, the number of employees according to the general division of service:

EMPLOYEES OF THE COAL MINING COMPANY OF ANZIN ENGAGED IN COAL MINING, BY NATURE OF WORK PERFORMED, 1883 TO 1892.

[The totals in this table do not agree with those in the preceding table, as they represent the condition of affairs for a particular date rather than an average for the year.]

Year.	Actual work of mining.		Maintenance and repairs.		Transportation.		Filling in exhausted veins.		Overseeing.		Total below ground.		Total above ground.		Grand total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1883..	5,475	47.2	1,493	12.9	1,261	10.9	1,361	11.8	271	2.3	9,861	85.1	1,729	14.9	11,590	100
1884..	5,284	53.2	876	8.8	1,162	11.7	1,023	10.3	241	2.5	8,586	86.5	1,344	13.5	9,930	100
1885..	5,786	60.0	510	5.3	995	10.3	581	6.0	230	2.4	8,102	84.0	1,547	16.0	9,649	100
1886..	5,848	61.1	470	4.9	1,012	10.6	482	5.1	232	2.4	8,044	84.1	1,525	15.9	9,569	100
1887..	6,118	63.1	458	4.7	998	10.3	396	4.1	226	2.3	8,196	84.5	1,500	15.5	9,696	100
1888..	6,344	65.0	396	4.0	993	10.2	307	3.1	212	2.2	8,252	84.5	1,509	15.5	9,761	100
1889..	6,547	65.7	374	3.8	1,036	10.4	295	2.9	226	2.3	8,478	85.1	1,483	14.9	9,961	100
1890..	6,974	65.4	444	4.2	1,115	10.5	324	3.0	240	2.2	9,097	85.3	1,566	14.7	10,663	100
1891..	7,004	65.5	407	3.8	1,146	10.7	294	2.7	243	2.3	a9,094	85.0	a1,604	15.0	a10,694	100
1892..	6,793	64.3	416	4.0	1,193	11.3	320	3.0	243	2.3	8,965	84.9	1,597	15.1	10,562	100

a The addition of the total employees below and above ground does not produce the grand total here shown. The figures are given, however, as reported to the Department.

THE GENERAL CONDITIONS OF LABOR.

The aggregation of over 12,000 employees in one locality, who, with their families, are all dependent upon a single industry, and live under practically the same conditions, furnishes an excellent opportunity for the study in detail of the influences surrounding an important body of workingmen engaged in one of the principal industries of the country. This description will naturally fall into two parts: First, the general conditions of labor; second, the numerous workingmen's institutions, such as pension funds, cooperative stores, mutual aid societies, etc., for which Anzin has been remarkable during the past half century.

The employees of the company are almost invariably obtained from among the population of the surrounding country. For the most part they enter the employment of the company as children. In probably the majority of cases they are the children of present employees; and members of the same family thus appear upon the pay roll of the company during several generations.

Formerly children destined for work below ground were admitted at the age of 10 years. In 1874 the minimum age limit was raised to 12, and again, by the law of November 2, 1892, to 13 years. The minimum age limit for those employed above ground is likewise 13, except that children 12 years of age can be employed provided that they have a certificate showing a certain amount of education and one showing their physical qualification. The new recruits are at first employed in various ways on the surface, such as washing and sorting coal, and are gradually drafted into the work below ground as the need for extra workmen is felt. From that moment, if their conduct is satisfactory, their employment for life is assured. It will be seen further on that stability of employment is one of the characteristics of the conduct of industry on a large scale. Anzin is a remarkable example of this. At the age of 55 years the miner, if he desires to do so, can retire from work on an old-age pension, from a pension fund maintained by the joint efforts of the company and the miners. The period of active labor of a miner at Anzin can thus be estimated to be, on an average, 40 years. The two following tables have been introduced to show the ages of workingmen on entering the employment of the company for the years 1888 to 1893, inclusive, and the actual ages of all employees in February, 1892. This date has been taken because the computation had already been made by the company, and nothing would be gained by making a calculation for a later date.

NUMBER AND PER CENT OF EMPLOYEES OF EACH SPECIFIED AGE ENTERING THE SERVICE OF THE COAL MINING COMPANY OF ANZIN, 1888 TO 1893.

Year.	Ages.										Total.
	12 years.	13 years or under 14.	14 years or under 15.	15 years or under 16.	16 years or under 20.	20 years or under 25.	25 years or under 30.	30 years or under 35.	35 years or over.	Unknown.	
1888	16	291	82	27	92	39	43	25	45	60	720
1889	7	399	80	62	209	136	128	90	71	.....	1,182
1890	38	363	77	70	183	140	84	46	36	.....	1,037
1891	14	298	37	15	43	300	27	14	9	.....	757
1892	17	330	41	11	19	217	5	5	1	.....	646
1893	11	359	46	10	15	294	4	3	1	.....	743
Total	103	2,040	363	195	561	1,126	291	183	163	60	5,085
Per cent of total	2.03	40.12	7.14	3.83	11.03	22.14	5.72	3.60	3.21	1.18	100

AGE OF EMPLOYEES OF THE COAL MINING COMPANY OF ANZIN, FEBRUARY, 1892.

Age.	Employees.			Age.	Employees.			Age.	Employees.		
	Below ground.	Above ground.	Total.		Below ground.	Above ground.	Total.		Below ground.	Above ground.	Total.
12	.....	29	29	30	280	7	287	48	148	17	165
13	151	147	298	31	298	10	308	49	141	20	161
14	378	2	380	32	251	15	266	50	122	22	144
15	445	1	446	33	237	19	256	51	107	14	121
16	393	5	398	34	218	24	242	52	97	16	113
17	450	3	453	35	203	12	215	53	72	11	83
18	358	2	360	36	190	7	197	54	71	6	77
19	384	10	394	37	185	13	198	55	42	9	51
20	412	9	421	38	187	12	199	56	25	8	33
21	365	4	369	39	187	10	197	57	14	3	17
22	385	9	394	40	211	12	223	58	18	4	22
23	348	1	349	41	162	17	179	59	7	5	12
24	322	8	330	42	143	14	157	60	7	2	9
25	340	6	346	43	162	12	174	61	1	2	3
26	337	10	347	44	181	20	201	62	5	1	6
27	296	16	312	45	182	8	190				
28	294	6	300	46	168	12	180	Total.	10,391	661	11,052
29	276	14	290	47	135	15	150				

It will be noticed from the first of these two tables that a large proportion of the employees of the company enter its service as youths of 13 or 14 years of age. The apparently large number entering between the ages of 20 and 25 years is caused by their return from military duty. The great majority of them had already been in the employ of the company.

The two tables following make a comparison of the ages of workingmen at Anzin with those of all coal miners in France. The law of November 2, 1892, regulating the hours of labor of women and children, divides the workingmen into three classes: (1) Children, 13 or under 16 years; (2) minors, 16 or under 18 years; and (3) adults, 18 years of age or over. The first table compares Anzin for the year 1892 with France for 1893, according to this grouping. The second is a comparison of ages in greater detail. The conditions at Anzin, it will be seen, differ little from those of France generally.

NUMBER AND PER CENT OF EMPLOYEES, BY AGE PERIODS, AT ANZIN AND IN ALL COAL MINES OF FRANCE.

Age periods.	Employees below ground.				Employees above ground.			
	Anzin, 1892.		France, 1893.		Anzin, 1892.		France, 1893.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
13 or under 16 years.	974	9.37	4,412	4.71	a 179	27.08	4,073	10.45
16 or under 18 years.	843	8.11	5,507	5.88	8	1.21	2,823	7.25
18 years or over ...	8,574	82.52	83,766	89.41	474	71.71	32,063	82.30
Total	10,391	100.00	93,685	100.00	a 661	100.00	38,959	100.00

a Includes 29 twelve years of age.

PERCENTAGE OF MINE EMPLOYEES, BY AGE PERIODS, AT ANZIN AND IN ALL COAL MINES OF FRANCE.

[The figures for Anzin are for September 6, 1886; those for France were obtained from the Annales des Mines for 1885.]

Locality.	Age periods.												
	12 or under 16 years.	16 or under 20 years.	20 or under 25 years.	25 or under 30 years.	30 or under 35 years.	35 or under 40 years.	40 or under 45 years.	45 or under 50 years.	50 or under 55 years.	55 or under 60 years.	60 or under 65 years.	65 or over.	Total.
Anzin, 1886	8.2	19.6	12.9	14.5	11.2	10.6	9.5	8.2	3.7	1.4	0.15	0.05	100
France, 1885	6.6	15.2	11.2	13.7	13.0	11.4	10.0	7.8	5.4	3.3	1.4	1.0	100

The miners, properly so called, in general descend into the mines at 4 o'clock in the morning and return to the surface at 1 or 2 o'clock in the afternoon, or after nine or ten hours below ground. If the time lost in ascending and descending the shaft and a half hour's rest for lunch be deducted, there remains from eight to nine hours' actual labor. On Sundays and holidays all labor is suspended, except in certain cases for repair work. The following table shows the average number of hours present at the mine and the number of hours devoted to actual labor per day during 1891 for each mine employee of the company of Anzin. Both of these classes of information should be considered in determining the duration of labor of coal miners, as the time consumed in reaching their work varies greatly with miners in different mines. The distinction between employees working above and below ground is also made.

NUMBER AND PER CENT OF EMPLOYEES OF THE COAL MINING COMPANY OF ANZIN, BY HOURS ON DUTY AND HOURS OF ACTUAL LABOR, 1891.

[Hours on duty includes time consumed in going to and returning from work.]

Hours of labor per day.	Employees below ground.				Employees above ground.			
	On duty.		At actual labor.		On duty.		At actual labor.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
7	5	.06	107	1.21			45	3.10
7½	13	.15	75	.85				
7¾	20	.23	205	2.33			22	1.52
7¾	48	.55	45	.51				
8	112	1.27	956	10.85	1	.07	30	2.07
8½	644	7.31	443	5.03				
8¾	343	3.89	681	7.73				
8¾	671	7.62	648	7.36				
9	1,062	12.06	2,033	23.08			80	5.52
9½	962	10.92	1,003	11.39				
9¾	1,015	11.52	993	11.27			70	4.83
9¾	1,619	18.38	479	5.44			2	.14
10	570	6.47	454	5.15	75	5.17	164	11.31
10½	567	6.44	263	2.99			24	1.65
10¾	209	2.37	212	2.41	280	19.31	777	53.59
10¾	250	2.84	57	.65	10	.69		
11	186	2.11	102	1.16	97	6.69	179	12.34
11½							20	1.38
11¾	490	5.56	40	.45	152	10.48	21	1.45
11¾					20	1.38		
12	22	.25	12	.14	814	56.14	16	1.10
12½								
14					1	.07		
Total	8,808	100.00	8,808	100.00	1,450	100.00	1,450	100.00

A comparison of average hours of labor per day at Anzin for the year 1891 with the average hours in 1890 for the coal mines of the whole basin in which Anzin is situated (Nord and Pas-de-Calais), and for all the coal mines of France, is made in the following table.

From the comparison here given it is seen that the hours of labor are in general somewhat longer at Anzin than either in its special coal basin or in France. The difference is more pronounced in the case of hours on duty than in that of hours of actual labor.

AVERAGE HOURS OF LABOR PER DAY AT COAL MINES AT ANZIN, IN THE DEPARTMENTS OF NORD AND PAS-DE-CALAIS, AND IN ALL FRANCE.

[The figures for the departments of the Nord and Pas-de-Calais and for France were obtained from Une Notice sur le Nombre, les Salaires et la Durée du Travail des Ouvriers des Mines, en 1890, contained in the annual volume Statistique de l'Industrie Minérale et des Appareils à Vapeur en France et en Algérie pour l'année 1889.]

Locality.	Average hours per day on duty.			Average hours per day actual labor.		
	Employees below ground.	Employees above ground.	All employees.	Employees below ground.	Employees above ground.	All employees.
Anzin, 1891	9.52	11.47	9.80	9.02	10.26	9.19
Nord and Pas-de-Calais, 1890	9.40	10.50	9.23	8.80	9.50	8.26
France, 1890	9.45	10.46	10.00	8.13	9.39	8.25

There is probably no one feature of the modern system of organization of industry more productive of injurious results to the workingmen than the periodic interruptions to which they are subjected under present conditions in their ability to obtain work. Next to that of the amount of their wages, the question of the regularity of their employment is the one in which workingmen are most interested. The absence of a reasonable certainty of continuous employment means not only a curtailing of their earning capacity, but their demoralization generally. The constancy of employment is, then, a prime element in determining the condition of any particular class of workingmen.

The conditions at Anzin in this respect could scarcely be improved upon. During the entire year the intensity of work is equal. The table that follows shows that in the twenty-four years from 1870 to 1893, inclusive, the mines were operated almost every possible working day. If the tables relating to the number of years the workingmen have been continuously employed that are given further on be considered in connection with this one, it is evident that Anzin includes a practically stable body of workingmen, to whom the evils of lack of employment are almost unknown.

ERAGE DAYS WORKED BY EMPLOYEES OF THE COAL MINING COMPANY OF ANZIN DURING EACH YEAR, 1870 TO 1893.

ar.	Average days worked.				Year.	Average days worked.			
	Employees below ground.		Employees above ground.	All employees.		Employees below ground.		Employees above ground.	All employees.
	Miners.	Others.				Miners.	Others.		
.....	301	297	333	301	1882	317	303	346	310
.....	299	299	338	303	1883	304	305	345	310
.....	313	321	355	325	1884	243	246	309	254
.....	312	320	353	325	1885	257	261	301	267
.....	307	307	337	311	1886	277	283	314	288
.....	313	308	353	314	1887	282	288	318	292
.....	301	302	349	310	1888	286	288	318	293
.....	292	288	334	294	1889	284	288	323	294
.....	278	278	321	284	1890	283	288	319	293
.....	280	278	320	284	1891	278	285	319	290
.....	308	305	344	311	1892	271	277	317	285
.....	312	305	344	310	1893	278	283	319	288

Vhatever advantages the workingmen of a particular locality or ablishment may enjoy, their wages must, under present conditions, stitute the greatest factor in determining their economic well-being. Anzin daily wages are but rarely paid. The wages of employees determined by the amount of work performed, and a settlement is de fortnightly. Miners are paid so much per car of coal mined. e price per car is fixed by the company's engineer and accepted by miner for a fortnight or for a certain distance along the vein to be ned. Formerly the miner did not transport his own coal nor main- n his passage in repair. The work of the carman was absolutely ependent of that of the miner. This gave rise to serious difficulties. her the miner complained that his coal was not carried away with ficient rapidity, or the carman complained that a sufficient quantity coal was not mined to keep him fully employed. This has now been irely changed, and the present practice is for the miner to have his or some other member of his family work with him to aid in the nsport of his coal. Then, if necessary, his son can aid him in the ration of mining, or, if coal accumulates, he himself can assist in transport. An additional advantage of the system, moreover, is t young laborers just entering the mine serve an apprenticeship ler those most interested in their welfare. Under these conditions s evident that rates of wages can not be given. In the table that ows are shown the average daily and yearly wages of all mine ployees of Anzin according to the three great classes of occupations— ners, laborers below ground other than miners, and laborers above und—with an average for the three classes combined, for the years 0 to 1893, inclusive.

While in many industries employing workingmen of widely-varying rees of skill, and earning equally divergent rates of wages, average rly wages would be absolutely meaningless, this is not true of coal ing. Here the greater part of the work performed falls into a few ses of occupations, all *of which require* about the same degree of

skill, and in which the wages paid differ but slightly. For practical purposes, therefore, these tables give a sufficiently accurate idea of the wages of miners, as well as the variation of wages during the period covered.

AVERAGE DAILY AND YEARLY WAGES OF EMPLOYEES OF THE COAL MINING COMPANY OF ANZIN, 1870 TO 1893.

Year.	Average daily wages.				Average yearly wages.			
	Employees below ground.		Employees above ground.	All employees.	Employees below ground.		Employees above ground.	All employees.
	Miners.	Others.			Miners.	Others.		
1870	$0.71	$0.58	$0.45	$0.57	$219.19	$171.39	$149.10	$171.96
1871	.75	.61	.45	.58	223.33	181.78	151.34	174.27
1872	.80	.64	.49	.62	250.70	204.44	174.71	201.97
1873	.92	.72	.56	.70	288.43	229.13	198.94	227.06
1874	.90	.71	.55	.69	275.52	218.04	185.37	214.88
1875	.92	.72	.56	.70	288.15	222.14	198.94	219.99
1876	.92	.73	.57	.71	278.27	220.90	198.03	219.58
1877	.82	.70	.56	.66	240.08	202.33	186.30	195.19
1878	.81	.67	.55	.65	224.27	185.11	177.81	185.26
1879	.79	.65	.54	.64	219.94	181.89	174.16	180.88
1880	.82	.67	.55	.66	251.45	205.44	189.22	203.23
1881	.82	.67	.61	.66	258.04	207.86	208.47	208.05
1882	.85	.69	.60	.68	261.90	211.34	208.54	211.14
1883	.87	.73	.66	.71	265.20	218.03	227.87	220.18
1884	.85	.73	.70	.72	207.01	179.92	216.79	184.89
1885	.85	.76	.60	.73	208.60	196.86	181.61	194.46
1886	.84	.76	.61	.73	233.62	214.75	191.49	211.05
1887	.85	.76	.56	.73	238.39	218.24	178.47	214.56
1888	.85	.77	.60	.74	242.87	220.78	180.00	215.91
1889	.89	.80	.61	.77	252.68	232.08	195.99	226.55
1890	1.02	.90	.66	.86	287.30	260.90	210.84	253.49
1891	1.06	.94	.68	.90	294.56	268.19	216.57	260.55
1892	1.06	.94	.67	.89	287.94	260.32	213.21	253.21
1893	1.05	.93	.67	.89	291.46	264.76	213.25	256.87

It is scarcely necessary to call attention to the value of a record such as that contained in the table just given. While it can not be used for exact comparison with wages paid elsewhere, inasmuch as it relates to the earnings of several classes of workingmen combined, it shows clearly the relative variations in wages of coal-mine employees at Anzin. The showing is a very gratifying one as regards the increasing economic welfare of the laborers. From an average daily wage of 2.96 francs (57 cents) the rate for all employees increased rather slowly during the first decade, being but 3.42 francs (66 cents) in 1880. In the next ten years, however, wages had increased materially, being 4.48 francs (86 cents) in 1890, while during the next three years a still further increase to 4.61 francs (89 cents) was recorded. The significance of this increase is still more apparent if annual wages be contrasted. In 1870 the average for all employees was 890.96 francs ($171.96). In 1880 the average was 1,053 francs ($203.23), in 1890 had increased to 1,313.44 francs ($253.49), and in 1893 was 1,330.94 francs ($256.87). These figures represent an increase of a little over 49 per cent during the period.

The only possible element that could enter into this showing to vitiate the deduction that a real increase in wages had resulted, not only for all employees combined, but for each of the different classes of workmen entering into the calculation, is that the number of employees *in higher-paid* classes of work figure to a greater extent in later than

in former years. Reference to the table already given (page 230), showing the number and per cent of workingmen according to nature of work done, shows a remarkably similar proportional distribution of the personnel among the different classes of work. There is every reason to believe, therefore, that all classes of workingmen have profited in the general increase in wages.

That these figures, however, may serve as an index of the absolute as well as the relative economic condition of the laborers, they need to be completed by, or interpreted in the light of, two important considerations: First, the amount of supplementary advantages enjoyed by the workingmen, such as cheap housing, medical attendance, free fuel, etc.; second, the quantity of necessary or usual articles of consumption that their wages will purchase, or, to state it in another way, the relation between the amount of wages and the prices of commodities.

Concerning the first point—that of supplemental advantages—a detailed consideration will be given later on. For the present purpose it is sufficient to insert a table showing, for each of the eleven years from 1883 to 1893, the total and average wages, the total and average value of supplemental advantages, and the proportional addition to wages that the supplementary advantages represent. From this table it will be seen that there has been a fairly constant tendency for the absolute value of supplemental advantages to increase, and that this value represents a slightly increasing proportion of the average amount received as wages. At the present time, speaking in round numbers, it can be said that the supplemental advantages enjoyed by workingmen at Anzin represent at least a 10 per cent addition to their wages.

WAGES AND ADVANTAGES SUPPLEMENTARY TO WAGES OF EMPLOYEES OF THE COAL MINING COMPANY OF ANZIN, 1883 TO 1893.

[The figures showing the amount of wages and advantages supplementary to wages per employee were computed by the Coal Mining Company of Anzin from data which are not known; hence they differ slightly from those computed on the basis of the total number of employees given elsewhere in the report.]

Year.	Wages.	Advantages supplementary to wages.	Total wages and supplementary advantages.	Wages per employee.	Supplementary advantages per employee.	Total wages and supplementary advantages per employee.	Per cent of supplementary advantages of wages.
1883	$2,962,357.00	$236,372.99	$3,198,729.99	$220.18	$17.34	$237.52	7.98
1884	2,257,135.00	225,665.52	2,482,800.52	184.89	19.55	204.44	9.99
1885	2,131,492.00	215,838.65	2,347,330.65	194.46	20.40	214.86	10.12
1886	2,305,771.00	220,223.43	2,525,994.43	211.05	19.35	230.40	9.55
1887	2,341,283.00	233,929.97	2,575,212.97	214.56	20.55	235.11	9.99
1888	2,372,163.00	253,933.89	2,626,096.89	215.91	22.05	237.96	10.70
1889	2,532,546.00	266,397.47	2,798,943.47	226.55	22.58	249.13	10.52
1890	2,947,777.39	282,043.95	3,229,821.34	253.49	22.53	276.02	9.56
1891	3,113,575.74	314,010.78	3,427,586.52	260.55	24.63	285.18	10.08
1892	2,995,476.36	321,916.35	3,317,392.71	253.21	25.61	278.82	10.74
1893	3,045,421.43	330,098.79	3,375,520.22	256.87	26.01	282.88	10.84

From this table it can be seen, without reproducing the figures which can easily be consulted in the table itself, that the inclusion of the additional element of supplementary advantages accentuates yet more the

increase in earnings shown in the table relating to wages proper. It should be remembered, moreover, that the value of supplementary advantages as here stated indicates only their cost to the company. It is probable that if they had been furnished by the workmen themselves their cost would have been considerably greater. The real value of these supplementary advantages is therefore without doubt in excess of that shown in the table.

Concerning the second point, it is of interest to note the study, with accompanying tables, made by M. Georges Michel, of the Économiste Français, on this particular question for the miners of Anzin, and included in his book entitled Histoire d'un Centre Ouvrier (Les Concessions d'Anzin). The most important of his tables—the one in which he has brought into correlation the average prices of commodities with the budget of a typical family, composed of father, mother, and four children, of which the eldest has commenced work, for each decade from 1820 to 1887—is here reproduced. It should be borne in mind that this table is but a calculation based on such data as were obtainable. M. Michel first made the calculation for the period 1880 to 1887, in which it is reasonable to suppose that substantial accuracy was secured. Then, using this as a basis, and taking into account, not only the variation in the prices of commodities and of average earnings, but of changes in the habits of the workingmen as well, he was able to calculate the budgets for the preceding decades. The officials of the company, moreover, examined the figures of M. Michel, and after making a few corrections, expressed themselves as satisfied that they represented a substantial approximation to the true condition of affairs.

COST OF LIVING OF A TYPICAL FAMILY OF SIX AT ANZIN, 1820 TO 1887.

Objects of expenditure.	Unit.	1820 to 1830.			1830 to 1840.			1840 to 1850.			1850 to 1860.		
		Quantity.	Price.	Value.	Quantity.	Price.	Value.	Quantity.	Price.	Value.	Quantity.	Price.	Value.
Bread	Pound.	2,337	$0.026	$60.76	2,337	$0.028	$65.44	2,337	$0.029	$67.77	2,337	$0.032	$74.78
Meat	Pound.	66	.061	4.03	99	.070	6.93	99	.096	9.50	121	.105	12.71
Milk	Quart.	106	.024	2.54	137	.024	3.29	159	.024	3.82	169	.026	4.39
Butter	Pound.	22	.131	2.88	33	.136	4.49	40	.152	6.08	44	.163	7.17
Eggs	Dozen.	100	.115	.96	150	.126	1.58	150	.127	1.50	200	.131	2.18
Fruits and vegetables purchased.	.....	.....	.....	3.86	.....	.....	8.69	.....	.....	9.65	.....	.....	9.65
Beer	Gallon.	53	.044	2.33	132	.044	5.81	159	.044	7.00	211	.044	9.28
Alcoholic drinks	.....	.....	.....	.97	.....	.....	.97	.....	.....	.97	.....	.....	1.16
Groceries:													
Oil	Quart.	11	.164	1.80	16	.194	3.10	16	.192	3.07	16	.205	3.28
Coffee	Pound.	18	.219	3.94	22	.218	4.80	26	.178	4.63	26	.213	5.54
Sugar	Pound.	11	.197	2.17	15	.185	2.78	18	.151	2.72	22	.154	3.39
Soap	Pound.	99	.054	5.35	99	.056	5.54	110	.050	5.50	110	.051	5.61
Miscellaneous	.....	.....	.....	1.93	.....	.....	1.93	.....	.....	2.32	.....	.....	2.32
Haberdashery	.....	.....	.....	1.93	.....	.....	2.32	.....	.....	2.90	.....	.....	3.86
Table utensils	.....	.....	.....	.97	.....	.....	.97	.....	.....	.97	.....	.....	1.93
Furniture	.....	.....	.....	1.54	.....	.....	1.93	.....	.....	1.93	.....	.....	2.32
Clothing	.....	.....	.....	13.51	.....	.....	17.76	.....	.....	19.30	.....	.....	20.27
Hats	.....	.....	.....	1.54	.....	.....	2.32	.....	.....	2.90	.....	.....	3.86
Shoes	.....	.....	.....	2.32	.....	.....	3.86	.....	.....	4.83	.....	.....	5.79
Rent and cultivation of garden.	.....	.....	.....	11.58	.....	.....	13.51	.....	.....	14.48	.....	.....	14.48
Various, saloon, savings, etc.	.....	.....	.....	1.93	.....	.....	3.86	.....	.....	5.79	.....	.....	8.69
Total expenditures.	.....	.....	.....	128.84	.....	.....	161.88	.....	.....	177.72	.....	.....	202.66

COST OF LIVING OF A TYPICAL FAMILY OF SIX AT ANZIN, 1820 TO 1887—Concluded.

Objects of expenditure.	Unit.	1860 to 1870.			1870 to 1880.			1880 to 1887.		
		Quantity.	Price.	Value.	Quantity.	Price.	Value.	Quantity.	Price.	Value.
Bread	Pound.	2,315	$0.032	$74.08	2,315	$0.032	$74.08	2,315	$0.030	$69.45
Meat	Pound.	176	.118	20.77	254	.144	36.58	254	.166	42.16
Milk	Quart.	190	.029	5.51	232	.029	6.73	232	.029	6.73
Butter	Pound.	66	.207	13.66	88	.263	23.14	88	.280	24.64
Eggs	Dozen.	240	.143	2.86	250	.182	3.79	270	.174	3.92
Fruits and vegetables purchased.				11.58			13.51			11.58
Beer	Gallon.	264	.058	15.31	317	.077	24.41	317	.080	25.36
Alcoholic drinks				1.54			1.93			1.93
Groceries:										
Oil	Quart.	19	.250	4.75	21	.265	5.57	21	.274	5.75
Coffee	Pound.	33	.198	6.53	33	.285	9.41	29	.341	9.89
Sugar	Pound.	31	.121	3.75	31	.131	4.06	40	.149	5.96
Soap	Pound.	132	.044	5.81	132	.038	5.02	132	.039	5.15
Miscellaneous				4.83			5.79			5.40
Haberdashery				5.79			6.76			6.76
Table utensils				2.32			2.90			2.90
Furniture				2.90			3.86			3.86
Clothing				30.88			42.46			44.39
Hats				4.83			5.79			5.79
Shoes				8.69			11.58			11.58
Rent and cultivation of garden.				15.44			16.41			16.41
Various, saloon, savings, etc.				14.48			33.78			38.60
Total expenditures.				256.31			337.56			348.21

The main interest in budgets of this character is the information afforded concerning the manner in which the workingman spends his income. Apart from this, however, it is possible, through reference to the column showing the prices of commodities which go to make up the usual articles of consumption of the workman, to determine whether the increase in wages shown in previous tables is counteracted or not through a change in the cost of articles he is accustomed to purchase. The comments of the author, in part, on this table are as follows:

"From these tables it can be seen that the greatest variations occur in the classes—

"First, meat. Workingmen in the north of France can now eat meat almost every day, while fifty years ago meat could not always be had once a week.

"Second, clothing. Although the price of materials for clothing has diminished within later years, the expenditure demanded by this item of the workingmen's budget has sensibly increased. The same observation applies to all classes of society. Formerly tastes were more simple and the style less changing. To-day the workingman feels called upon to clothe himself and family in a more elegant manner, and to follow, in a measure, the frequent changes of fashion.

"Third, various expenses. This class, in which are included the expenditures for amusements and at the drinking places, has unfortunately greatly increased. We are of the opinion that it now represents 10 per cent of the total family expenditures. It is the drinking houses that absorb all."

WORKINGMEN'S INSTITUTIONS.

The most important part of an investigation of special laboring communities must necessarily be that of the study of the inhabitants in their mutual relations. Such a grouping of men and women with identical interests gives rise to opportunities for the organization of institutions for mutual and collective action that do not exist elsewhere.

These opportunities can be taken advantage of in three ways; either through the creation by the employer of institutions for the benefit of his employees, through the organization by the employees themselves of institutions for their mutual benefit, or through the cooperation of the employer with his employees for the purpose of securing improved conditions. It is a matter of fundamental importance which of these three policies is in each case pursued. There has been a distinct evolution of sentiment in regard to the question here involved. From the original position that they had no obligation toward their employees other than that of the payment of wages, employers, in many cases, went to the opposite extreme. Though they created admirable institutions for the benefit of their employees, they treated the latter as wards, and retained in their own hands an arbitrary management of their new creations. Since then the workingman has more and more demonstrated his ability to look after his own interests, and, conscious of his own capacities, he has chafed under any species of tutelage. The employer has in many cases responded to this new sentiment, and as far as possible has given over the management of his social institutions into the hands of those for whose benefit they are intended. At the same time the employees are encouraged to organize independent institutions of their own.

This development of self-help and self-reliance by no means resulted in a curtailment of the province or the variety of workingmen's institutions. On the contrary, the development of the association idea has rendered possible the exercise of mutual action in fields that it was impossible for employer-managed institutions to enter.

The workingmen's institutions at Anzin are a notable example of institutions organized on a liberal basis. Whether regarded from the standpoint of the generous sacrifices made by the company for their maintenance, or from that of its liberal attitude regarding the participation of employees in their management, the social institutions of Anzin are the most remarkable of any in France. A study of the constitutions and workings of these institutions will therefore be made in great detail. These institutions are, however, by no means the unique possession of Anzin. Though the same ensemble of institutions exists in no other place in France, each one is but the representative of a class of institutions found at a great many of the other important industrial centers of the country. The study here made will, therefore, be of all the more importance, as it will represent a study, not of institutions that have an isolated existence, but of those that have received a widespread application and approval.

THE HOUSING OF EMPLOYEES.

The provision of dwellings for their employees by the large industrial concerns situated outside of the large cities is, in France, almost universal. "To-day," says M. Georges Picot, in his report on workingmen's houses for the International Exposition at Paris, 1889, "there is not in France a chief of an important industry who has not made efforts to aid in the housing of his employees." To secure this end four combinations have been devised and put into practice by employers:

First. The construction of houses in which their workingmen are lodged free from payment of all rent.

Second. The construction of houses that are afterwards rented to the workingmen at reduced charges.

Third. The construction of houses and their sale to employees.

Fourth. The advancement of money or provision of land to employees to enable them to acquire or build houses of their own.

Each system has its advocates, though the first is rarely practiced. At Anzin the efforts of the company have been directed in all of the last three ways. It has erected houses that it rents at low rates; it has erected others that it sells to employees; it has advanced money to and placed land at the disposal of its employees that they might acquire houses of their own according to their individual tastes and needs. The advantages of adopting several rather than a single device are evident. The inclinations of all workingmen are not similar. Some are satisfied to pay their yearly rent and are unwilling to make the sacrifices necessary to secure homes of their own; others eagerly embrace the opportunity of becoming house owners; and yet others prize highly the privilege of buying or constructing houses upon plans selected by themselves.

In the report on the Housing of the Working People, issued by the Department of Labor, the subject of workingmen's houses in France has been considered at length. The houses at Anzin are among those of which a description has been given. There is thus no necessity of giving an account of them here, further than a bare statement of what has been done in this respect.

The first houses erected by the company for the employees were begun in the year 1826. Since then it has bought or constructed, near all of its mine openings, houses that it rents to its employees. The total number of such houses in 1893 was 2,582.

On account of economy, the system of constructing houses in solid blocks was at first adopted. The great disadvantage of this system from the point of view of morality, however, soon led to its abandonment, and thereafter only isolated houses were built. Regarding these houses at Anzin and their rents, M. Picot, in his report above cited, says: "An excellent type of house has been selected. * * * A cellar, a ground floor with a large sitting room and kitchen, a first floor with two sleeping rooms, a garden of 200 meters (2,152.8 square feet);

such is the house that rents for from 3.50 to 6 francs ($0.67½ to $1.16) per month, 42 to 72 francs ($8.11 to $13.90) per year. The house costs 2,800 francs ($540.40). If the interest on this is calculated at 4 per cent, 112 francs ($21.62), and maintenance and taxes at 44 francs ($8.49), the rent ought to be 156 francs ($30.11). The company receives, in general, 72 francs ($13.90), or a loss of 84 francs ($16.21) from a normal rent, which is equivalent to a loss, on 2,628 houses (the number at the end of 1888), of 220,752 francs ($42,605.14) a year. In other words, the company obtains a net gain of 28 francs ($5.40) from a rent of 72 francs ($13.90), or 1 per cent on the capital invested. In no other place have we found similar figures or efforts on so large a scale."

In 1867, in order to encourage saving among its workingmen, the company commenced the construction of isolated houses with gardens, which it sold to its employees at the cost of construction and the land. Those first erected were valued at from 2,200 to 2,700 francs ($424.60 to $521.10) each, but those erected later were of a better model and cost from 2,700 to 3,550 francs ($521.10 to $685.15). Payment for the houses was made in installments until the entire amount was paid. No interest of any kind was charged. Under this arrangement 93 houses had been erected up to 1893, at a total cost of 275,207 francs ($53,114.95). To supplement its former work, the company decided, in 1869, to commence the advancing of money to the most worthy employees who wished to buy or build houses for themselves. Here the same facility for reimbursement by partial payments was offered. The advances were also without interest. In 1888 the company had advanced a total sum of 1,446,604 francs ($279,194.57), of which all but 101,140.09 francs ($19,520.04) had been repaid, and a total of 741 houses had been constructed or otherwise acquired by its employees.

If to the 2,628 houses rented by the company there be added the 93 houses built by it and sold to the workingmen, and the 741 houses acquired through advances made by the company to the employees, there results a total of 3,462 houses that had been provided through the efforts of the company in 1888, and the number remained practically unchanged in 1893. In 1888 the company estimated that it had lost rent to the amount of 84 francs ($16.21) per year on each of 2,628 houses, or a total of 220,752 francs ($42,605.14); interest on houses sold and not paid for, 3 per cent on 67,558.12 francs ($13,038.72), or 2,026.75 francs ($391.16); interest on sums still due on advances made to build, 1,022.20 francs ($197.28); making the total cost of its effort for the housing of its employees 223,800.95 francs ($43,193.58).

OLD-AGE PENSIONS.

The continuous existence, during a long period of years, of a large industrial establishment employing thousands of men gives rise to relations of responsibility on its part for the welfare of its old employees that do not exist where an industry is carried on on a less stable or smaller scale. In a company such as that of Anzin its workingmen

have in great part entered its service as boys to continue in its employ until sickness or old age incapacitates them for work. Sons have succeeded fathers, and are themselves succeeded by their sons. It is difficult for an American to appreciate the importance that the European workingman attaches to this question of the provisions against old age. The heroic measures taken within the last ten years by Germany, in which the fullest powers of the State have been used to secure this end, illustrate the importance of the problem and its acuteness at the present time. In France the efforts made by the company of Anzin to provide for its old employees are the most important made by a private undertaking.

Previous to 1887 the company followed the practice of according to workingmen who had grown old in its service, and had become unable to work, a pension for the remainder of their lives, that constituted a direct charge upon the resources of the company. The employees participated in no way in the regulation of these pensions, nor was any portion of their wages during previous years retained to aid in the constitution of an insurance fund. There were serious objections to this system. The workingmen did not like the feeling that they were pensioners on the bounty of the company; and the pension being dependent on the financial prosperity of the company, they did not feel the same security that an independent insurance scheme would have offered. Recognizing this, on January 1, 1887, the company inaugurated a new system of old-age pensions. By this system it frankly took its workingmen into partnership and provided for the constitution, through mutual sacrifices, of an insurance fund that should be wholly independent of the company's funds or management. Though the company made sacrifices equal in amount to those under the old system, the pension was no longer a bounty but a right to which the workingman would acquire a title by years of voluntary sacrifices. This system is the more remarkable, for in 1894 the Government, as we shall see, adopted in toto its principles in framing its law regulating the insurance of miners generally throughout France. The regulations then adopted by the company concerning the granting of pensions might almost be said to have formed a model after which the French law was drawn.

The essential provisions of these regulations may be summarized in the following paragraphs:

Dating from January 1, 1887, the company agreed to deposit in the National Bank for Old-Age Pensions,(*a*) in the name of each working-

a The National Bank for Old-Age Pensions is a State institution created in 1850 and reorganized in 1886 by the law of July 20 and decree of December 28. Its operations are guaranteed by the Government and controlled by a commission organized under the Department of Commerce, Industry, Posts, and Telegraphs. Its object is to enable depositors to secure by small annual payments the right to a life pension, not to exceed 1,200 francs ($231.60) as a maximum, at the age of 50 years, or later, as the depositor may choose. The especial idea of Parliament was to offer to the ordinary laboring man *the means to insure for himself* through a small regular deduc-

man who would make an equal payment, a sum equal to 1½ per cent of the wages of the workingman. The two deposits are then recorded in an individual account book, which remains the property of the workingman. For workingmen employed below ground the payments of the company commence from the time of their entering upon such work. For those employed above ground the payments of the company commence when the workingmen are at least 18 years of age and have been in the employ of the company during three years. The payments of the company cease when the workingman has reached the age of 50 years. The latter, however, can defer the enjoyment of his pension, if he so desires, by continuing his personal payments. Through these payments the workingman is enabled to acquire the right to an annuity from the National Bank for Old-Age Pensions, on reaching the age of 50 years, for the remainder of his life. In case of permanent disability before reaching that age, he enters into the immediate enjoyment of a pension proportionate to his age and the amount of deposits to his credit.

In addition to these provisions whereby the company agreed to contribute toward the acquisition of pensions by workingmen an amount equal to their own payments, the company further provided for the increase of these pensions as a reward for long and faithful service. When a workingman has fulfilled the double condition of being at least 35 years of age and has been ten years without interruption in the employ of the company, a special account is opened with him for the succeeding years of his connection with the company, or until he has reached the age of 55 years, or has been retired on his pension. The total can in no case exceed fifteen years. For each of these years a special supplement to the pension, when due, of 3 francs (58 cents) for workingmen below and 1½ francs (29 cents) for those above ground will be added. The total supplementary pension, except in cases of severe injuries or infirmities contracted during work, is not paid unless the workingman remains with the company until he is 50 years of age. The latter, also, can not enter upon the enjoyment of his supplementary pension until he ceases to work for the company. For workingmen employed as overseers below ground the supplemental pension is raised

tion from his wages a provision for his old age. To this end the bank receives deposits of the smallest amounts which are increased by the accumulation of interest. With the exception of an amount sufficient to meet the daily payments, all the funds are invested in bonds of the French Government or other obligations guaranteed by the State. All interest thus earned is placed to the credit of the depositors. No deduction is made for the expenses of administration. In case of absolute incapacity to work, as the result of permanent infirmities, the depositor enters immediately into the enjoyment of a pension calculated according to his age and the amount of the payments he has made. Insurance through this institution is purely optional. No engagement, moreover, is entered into by the depositor as regards the amount or frequency of his payments. He can interrupt, diminish, or increase his payments as he desires. A separate account is kept with each depositor. The main use that has been made of this bank is its utilization by large industrial firms and mutual aid societies to provide for the insurance of their employees or members.

from 3 to 4 francs (58 to 77 cents), and for those employed above ground from 1½ to 2 francs (29 to 39 cents). For married workingmen living with their wives the supplemental pension is doubled.

Provision is also made in all cases for the payment of pensions to widows of workingmen. Transitory provisions make special arrangements for workingmen already in the employment of the company but whose ages prevent them from acquiring pensions according to the regular rates provided in the new regulation.

The most important and at the same time admirable provision of the regulation is that whereby the service of the old-age pensions proper is entirely removed from the control of the company. There is thus absolutely no forfeiture principle. Each workingman knows exactly where he stands as regards his ultimate right to a pension, and feels furthermore that such pension is in no way dependent upon his remaining in the service of the company. Independence is thus not sacrificed to the slightest extent.

Adherence to these regulations was purely optional. Ninety-five per cent of the workingmen, however, recognized the great advantages offered to them and signified their approval. The following table shows the results of the efforts of the company for pensioning its employees, both for the years immediately preceding the adoption of the new plan and for the years succeeding, including 1893. The table following this gives the ages of all pensioners of the company on March 15, 1894.

PENSIONERS AND EXPENDITURES FOR PENSIONS OF THE COAL MINING COMPANY OF ANZIN, 1883 TO 1893.

Year.	Pensions to old employees.			Pensions to widows of employees.			Amount paid by company to National Bank for Old-Age Pensions.	Total amount expended by company for pensions.
	Pensioners.	Total pensions.	Average pension.	Pensioners.	Total pensions.	Average pension.		
1883	712	$25,490.41	$35.80	651	$13,426.80	$20.62	.....	$38,917.21
1884	794	28,431.50	35.81	621	13,417.29	21.61	.....	41,848.79
1885	1,098	39,729.10	36.18	633	13,687.98	21.62	.....	53,417.08
1886	1,131	41,733.51	36.90	664	14,468.02	21.79	.....	56,201.53
1887	1,168	43,339.56	37.10	684	14,714.28	21.51	$5,899.82	63,953.66
1888	1,253	47,923.08	38.24	686	14,857.83	21.66	20,926.55	83,707.46
1889	1,279	49,090.82	38.38	725	15,654.84	21.59	26,023.73	90,769.39
1890	1,295	49,571.30	38.27	740	15,961.95	21.57	31,436.81	96,970.06
1891	1,302	50,746.14	38.97	787	16,616.28	21.11	55,938.73	123,301.15
1892	1,368	53,452.52	39.07	804	17,072.34	21.23	55,736.86	126,261.72
1893	1,379	54,740.06	39.69	827	17,400.31	21.04	56,775.39	128,915.76

AGE OF EMPLOYEES PENSIONED BY THE COAL MINING COMPANY OF ANZIN, MARCH 15, 1894.

Age.	Number.	Age.	Number.	Age.	Number.	Age.	Number.	Age.	Number.	Age.	Number.	Age.	Number.
22	1	37	1	47	2	56	58	65	56	74	20	83	5
25	2	38	2	48	7	57	69	66	44	75	13	84	3
27	2	40	2	49	3	58	86	67	60	76	11	85	1
30	1	41	2	50	12	59	75	68	47	77	12	86	1
31	1	42	1	51	30	60	70	69	44	78	8	87	3
33	2	43	6	52	27	61	54	70	41	79	12	88	1
34	2	44	3	53	41	62	65	71	25	80	5	89	1
35	1	45	2	54	58	63	66	72	22	81	7		
36	1	46	1	55	59	64	75	73	27	82	4	Total.	1,363

In explanation of the first of these two tables, it should be noted that the average amount of the pensions shown indicates only the pensions granted by the company as reward for long service. In addition to this, since 1887 the workingmen have been acquiring a pension through the National Bank for Old-Age Pensions. Thus, in the year 1893, the company paid for this purpose the sum of 294,173 francs ($56,775.39); in connection with this the workingmen have to pay an equal amount; the total amount paid into the national bank being, therefore, 588,346 francs ($113,550.78).

The year 1893 practically closes the record of voluntary individual efforts on the part of mine owners to pension their old employees or their widows.

Mention has been made of a general law concerning old-age pensions for mine employees. This law was passed June 29, 1894, and by it the insurance of all mine employees was made obligatory.

According to it each mine operator was required to pay into the National Bank for Old-Age Pensions, or into a special institution created by the operator for his own employees or in connection with other mine operators for the mutual insurance of their employees, the organization of which had received the authorization of the Government, on behalf of each workingman the wages of whom did not exceed 2,400 francs ($463.20) a year, a sum equal to 4 per cent of the latter's wages, half of which was to be deducted from the wages of the workingman and the other half be borne directly by the operators. These payments then were devoted to the ultimate acquisition of an old-age pension according to the regular rules of the National Bank for Old-Age Pensions.

For the company of Anzin and its employees, it will be noticed that the law made necessary but few changes. The company was already making such payments to the amount of 3 per cent of its employees' wages, in addition to the supplemental pensions for length of service. The general effect of the law was to make obligatory upon all mine owners the adoption of a system that had been practiced at Anzin since 1887.

The obligation to maintain aid societies for the aid of sick and injured workingmen was likewise imposed upon mine operators by this law, but this provision should be considered in connection with the account of the mutual aid societies of Anzin that follows.

MUTUAL AID SOCIETIES.

A temporary relief organization is a necessary complement of any system of old-age and invalidity insurance. The latter makes provision for the time when employees, through old age or disability, are unable longer to earn wages. The former provides for temporary incapacity or misfortune. Experience has demonstrated that it is advisable to keep these two services distinct from each other. The basis of a pen-

sion fund, resting as it does on calculations of probabilities according to mortality tables, ages of employees, etc., should be complicated as little as possible by other indeterminate charges.

To meet this want of mutual assistance in cases of sickness and other troubles, there has been developed in almost every commune and village of France one or more mutual aid societies (*sociétés de secours mutuels*). Their organization and operation afford a study of the most interesting institution that has been developed in France for improving the condition of the laboring classes. They are to France what the building associations are to America. Though ministering to different ends, they are similar to our building associations in that they are organized and managed for the most part by the workingmen themselves. They bring the workingmen together for purposes of mutual aid and action; their methods of operation and control are simple, and their expenses of administration are reduced to a minimum. M. Lafitte, an authority on all matters relating to mutual aid societies, thus tersely states their purposes (*a*): "Mutual aid societies have for their essential objects: To furnish to their members when sick medical attendance and necessary medicines; to pay to them a daily sum of money during their sickness; to secure to them a small pension after they have reached a certain age, and to defray the expense of a suitable burial on their death." To secure this each member pays into the funds of the society a fixed annual sum, as dues, usually divided into monthly or weekly payments.

These societies have had an existence in France for over fifty years. The central Government has encouraged their organization through the enactment of general laws, and a general control is exercised over their operations through a special bureau created in 1852 under the Department of the Interior. Annual reports are made by the societies to this bureau, and it in turn issues an annual report on their operations during the year. The important part that these societies play in the life of the workingmen of France is shown in the following statistics of their number and amount of business for 1892, the latest year obtainable:

Number of societies	9,662
Increase during year	248
Number of members	1,503,397
Increase during year	31,112
Receipts during year	$6,052,520.53
Increase	138,846.90
Assets at end of year	37,816,056.58
Increase during year	2,383,582.23

The study of the whole question of mutual aid societies in France would be an interesting one. Here only a brief statement of their general character and importance has been given in order that the purpose of the societies that exist at Anzin may be understood.

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a Essai d'une Théorie Rationnelle des Sociétés de Secours Mutuels, Paris, 1892.

Seven mutual aid societies have been organized under the patronage of the company. The constitutions of all of these societies are practically identical.

Briefly stated, each constitution provides for the organization of the workingmen into a society by which, for the trifling payment of 50 centimes ($9\frac{65}{100}$ cents) a month, the members receive the right in case of sickness or accident to free medical attendance and medicines, to a benefit of 1 franc ($19\frac{3}{10}$ cents) during each day of their sickness, if such sickness is not more than one year in duration, and to various other relief, such as burial expenses, etc. To accomplish this, however, the receipts of the society from dues have to be largely supplemented from other sources. The company, therefore, turns over to it the amount of all fines collected by it for the infraction of any of its regulations, a practice that removes the criticism often made that fines are levied for selfish purposes, and also makes to it liberal gifts when the receipts of the society are not sufficient to meet its obligations.

In the following tables the combined operations of the seven societies at Anzin during the eleven years from 1883 to 1893 are presented. From the first table it will be seen that the number of employees who are members of the societies is now over 8,000, or 94 per cent of those eligible for membership. The increasing percentage from year to year of those eligible for membership who have become members shows an increasing appreciation of the benefits that the societies offer.

In the table of receipts and expenditures two points are worthy of special attention. The first is the very small percentage that the expense of administration is of the total expenditures of the societies, the average for the period covered being less than 2 per cent. The second is the policy of creating as rapidly as possible a permanent fund, so that the societies may always have on hand an emergency fund and at the same time profit from interest on their investments. In this connection there should be noted a feature that applies to all workingmen's institutions whether organized at Anzin or elsewhere in France, and that is, that a system of mutual assessment in case of sickness or death has never found the slightest favor with the workingmen. They desire to know in all cases the exact amount of their obligations. In other words, they prefer the system of fixed dues. There are no details of the table that are worthy of special comment. The growth of receipts and expenditures has been normal, corresponding to the growth in membership.

MEMBERSHIP OF MUTUAL AID SOCIETIES AT ANZIN AND DAYS OF SICKNESS AND EXPENDITURE PER ACTIVE MEMBER, 1883 TO 1893.

Year.	Honorary members.	Active members.	Employees eligible but not members.	Employees eligible for membership.	Per cent of active members of eligible employees.	Days of sickness.		Expenditure per active member.
						Total.	Per active member.	
1883	59	2,572	5,208	7,780	33	26,751	10.4	$1.78
1884	268	3,170	4,259	7,429	43	28,097	8.9	1.55
1885	473	4,670	2,630	7,300	64	40,932	8.8	2.00
1886	455	a 5,940	a 1,627	a 7,573	78	60,623	10.2	2.59
1887	482	6,296	1,352	7,648	82	63,590	10.1	2.57
1888	487	6,544	1,126	7,670	85	74,162	11.3	2.74
1889	539	6,902	933	7,835	88	75,498	10.9	2.74
1890	525	7,605	1,044	8,649	88	97,202	12.8	3.21
1891	573	8,052	1,076	9,128	88	89,019	11.6	2.73
1892	551	a 8,199	a 590	a 8,800	93	95,851	11.7	2.99
1893	530	8,385	541	8,926	94	114,728	13.7	3.71

a The addition of the active members and employees eligible but not members does not produce the total eligible employees here shown. The figures are given, however, as reported to the Department.

RECEIPTS AND EXPENDITURES OF MUTUAL AID SOCIETIES AT ANZIN, 1883 TO 1893.

Items.	1883.	1884.	1885.	1886.	1887.
RECEIPTS.					
Balance on hand Jan. 1	$1,930.22	$2,275.83	$2,918.62	$6,537.09	$8,338.72
Dues of honorary members	68.32	354.35	683.41	732.63	799.40
Dues of active members	4,796.44	4,975.16	8,792.16	12,102.21	12,699.74
Fines turned over by company to the societies	.....	1.16	1,700.95	2,527.21	2,241.57
Gifts from the company	.....	19.30	1,042.20	1,166.68	1,299.76
Entrance fees	7.29	27.84	146.49	247.67	128.25
Interest on funds invested	35.73	34.91	119.90	93.35	189.14
Miscellaneous receipts	14.73	140.14	494.69	313.33	183.79
Total	6,852.73	7,828.69	15,898.42	23,720.17	25,880.37
EXPENDITURES.					
Expenses of administration	59.25	86.72	136.32	238.93	259.10
Aid to sick members	4,392.59	4,560.98	7,025.30	11,033.23	12,109.74
Expenses for funerals	85.69	123.33	183.35	217.90	186.63
Aid to widows, orphans, and families in need	34.74	73.34	1,871.13	3,139.43	3,142.85
Other expenses	4.63	65.70	145.23	751.96	480.23
Balance on hand Dec. 31	2,275.83	2,918.62	6,537.09	8,338.72	9,701.82
Total	6,852.73	7,828.69	15,898.42	23,720.17	25,880.37

Items.	1888.	1889.	1890.	1891.	1892.	1893.
RECEIPTS.						
Balance on hand Jan. 1	$9,701.82	$9,455.45	$10,807.56	$8,903.26	$11,152.59	$13,004.34
Dues of honorary members	710.14	720.28	681.00	833.95	819.96	774.99
Dues of active members	13,160.96	13,748.74	15,243.39	16,793.80	18,117.10	17,856.94
Fines turned over by company to the societies	2,386.52	2,195.65	2,439.78	3,103.62	2,553.99	6,795.87
Gifts from the company	856.92	2,528.69	3,396.80	1,779.46	4,272.85	4,517.38
Entrance fees	135.97	128.92	173.00	91.24	103.83	46.90
Interest on funds invested	264.81	271.27	236.77	264.86	341.07	290.66
Miscellaneous receipts	187.62	649.22	350.76	1,375.80	136.98	984.83
Total	27,404.76	29,698.22	33,329.06	33,145.99	37,498.37	44,271.91
EXPENDITURES.						
Expenses of administration	247.81	352.19	385.62	510.88	520.45	643.58
Aid to sick members	13,304.21	13,267.50	17,940.64	15,427.55	17,451.74	21,144.21
Expenses for funerals	354.73	254.10	334.08	454.52	429.04	825.07
Aid to widows, orphans, and families in need	3,320.47	4,548.26	5,220.17	3,976.67	5,666.88	6,729.94
Other expenses	722.09	468.61	545.29	1,623.78	425.92	1,769.02
Balance on hand Dec. 31	9,455.45	10,807.56	8,903.26	11,152.59	13,004.34	13,160.09
Total	27,404.76	29,698.22	33,329.06	33,145.99	37,498.37	44,271.91

The enactment of the law of June 29, 1894, necessitated a number of changes in the organization of these societies. The law made the organization of aid societies for the relief of employees in cases of sickness and accidents obligatory upon all mine operators. While it provided that wherever such societies were already in existence it would not be necessary to organize new societies, it required that they should be reorganized to such an extent as to comply with the provisions of the law. The chief innovation required was that concerning the sources of receipts. While heretofore the company had voluntarily contributed to the resources of the societies through the turning over to them of the product realized from fines, and through gifts from time to time, it was now rendered obligatory upon it to contribute toward the maintenance of the fund to an equal extent with the workingmen. This was in accordance with the provision of the law, which provided that the receipts of such societies should come from the following five sources: (1) A deduction from the wages of each employee, the amount of which is determined by the administration of the society and which can not exceed 2 per cent of his wages; (2) an equal payment by the mine operator; (3) subsidies granted by the State; (4) gifts and legacies, and (5) the product of fines for the infraction of certain regulations relating to the conduct of work below ground.

The law further made certain general provisions regarding the nature of the relief to be granted, for the government of the society through the mutual participation of the members and of representatives of the mine owners, etc. These sections, however, left a great deal of liberty to the individual societies and necessitated but few changes in societies already in existence.

COOPERATIVE DISTRIBUTIVE SOCIETY.

The organization of cooperative stores in the mining centers of France has, in a number of instances, achieved notable success. At Anzin a society was organized as early as 1865, and it is thus one of the first cooperative distributive societies created in France. Its creation was the direct result of the influence of the success of the Rochdale Pioneers in England. Operations commenced in 1865, but the society, properly speaking, had a legal existence only after December 10, 1867, when it took advantage of the law of July 24–29, 1867, to become a legal corporation.

The organization of the society is that of a joint stock company, but on such a basis that all speculative interest in the stock is eliminated. Each member of the society is required to own one, and can not own more than two shares of stock. The value of the shares of stock is 50 francs ($9.65) each. The society is absolutely independent of control by the company of Anzin. Membership is strictly limited to employees of the company, and only members can trade at the stores. The object of the society has always been to buy merchandise and the

usual articles consumed by miners at wholesale prices, and to sell them to the members in such a way as to bring the purchasers in direct relation with the producer and eliminate as far as possible the profits of the middleman. Largely with the idea of encouraging savings, it has been the steady policy of the society to fix the prices of articles as nearly as possible at the rate charged in neighboring retail stores, great care being taken, however, to in no case exceed those prices. As, with rare exceptions, supplies are purchased directly from the producers without the intervention of the middleman, a considerable profit is accumulated at the end of each year for distribution among the members. After the payment of necessary running expenses the profits remaining go first to the payment of a 5 per cent dividend on the stock, and the residue to purchasers in proportion to the value of their purchases during each year.

From the start the society has developed rapidly. The two following tables show from year to year, since organization, the membership of the society, the amount of capital, the amount of dividends paid, the total value of sales, the amount of profits earned, and the proportion that this latter bears to the value of all sales:

MEMBERS, CAPITAL, AND DIVIDENDS OF THE COOPERATIVE DISTRIBUTIVE SOCIETY OF ANZIN, 1866 TO 1894.

Year.	Members.	Capital.	Dividends paid.	Year.	Members.	Capital.	Dividends paid.
1866	577	$5,568.05	$96.04	1881	2,544	$24,549.60	$1,144.45
1867	785	7,575.25	148.43	1882	2,625	25,331.25	1,206.16
1868	1,180	11,387.00	360.02	1883	2,373	22,899.45	1,249.92
1869	1,357	13,095.05	654.75	1884	2,683	25,890.95	1,223.91
1870	1,441	13,905.65	695.28	1885	2,928	28,255.20	1,303.94
1871	1,630	15,729.50	786.48	1886	3,021	29,152.65	1,396.01
1872	1,839	17,746.35	835.73	1887	3,043	29,364.95	1,412.52
1873	2,123	20,486.95	791.50	1888	3,123	30,136.95	1,441.57
1874	2,186	21,094.90	935.15	1889	3,227	31,140.55	1,482.47
1875	2,159	20,834.35	962.02	1890	3,319	32,028.35	1,535.72
1876	2,204	21,268.60	987.82	1891	3,386	32,674.90	1,574.28
1877	2,127	20,525.55	978.62	1892	3,497	33,746.05	1,605.87
1878	2,154	20,786.10	978.86	1893	3,629	35,019.85	1,684.19
1879	2,238	21,596.70	1,016.28	1894	3,760	36,284.00	1,753.98
1880	2,386	23,024.90	1,077.13				

1866	1st half...	$13,706.88	$1,588.12	8
	2d half....	24,617.55	3,001.08	8
1867	1st half...	31,447.31	3,817.62	9
	2d half....	35,740.90	4,433.96	9
1868	1st half...	47,698.73	5,823.44	9
	2d half....	64,818.93	7,054.75	7½
1869	1st half...	66,449.04	8,367.33	9
	2d half....	69,696.44	9,245.07	9
1870	1st half...	77,497.93	10,034.51	9
	2d half....	82,056.75	9,296.22	8
1871	1st half...	74,988.49	9,825.94	9
	2d half....	92,214.59	12,249.07	9
1872	1st half...	140,716.18	14,071.62	10
	2d half....	134,333.59	16,119.98	12
1873	1st half...	152,517.72	18,301.96	12
	2d half....	174,434.37	20,932.10	12
1874	1st half...	220,550.90	22,055.09	10
	2d half....	191,832.25	19,183.23	10
1875	1st half...	168,556.54	16,855.66	10
	2d half....	168,657.06	16,865.71	10
1876	1st half...	179,454.40	17,945.44	10
	2d half....	181,327.32	18,132.73	10
1877	1st half...	182,211.12	18,221.11	10
	2d half....	175,245.52	17,524.55	10
1878	1st half...	177,767.48	17,776.75	10
	2d half....	168,130.21	18,494.32	11
1879	1st half...	178,919.95	19,681.19	11
	2d half....	176,254.03	21,150.48	12
1880	1st half...	193,371.19	23,204.54	12
	2d half....	212,044.84	23,324.93	11
1881	1st half..			
	2d half...			
1882	1st half..			
	2d half...			
1883	1st half..			
	2d half...			
1884	1st half..			
	2d half...			
1885	1st half..			
	2d half...			
1886	1st half..			
	2d half...			
1887	1st half..			
	2d half...			
1888	1st half..			
	2d half...			
1889	1st half..			
	2d half.			
1890	1st half			
	2d half.			
1891	1st half			
	2d half.			
1892	1st half			
	2d half.			
1893	1st half			
	2d half.			
1894	1st half			
	2d half.			
1895	1st half..			
	Total			10,

During this period, therefore, profits to the an
francs ($1,266,332.90) have been distributed amo
an amount equal to 12⅔ per cent of the total valu
tion to this all the profits have not been distril
sums have been devoted to the acquisition of p
business is carried on. The society has construct
ters for its central store and for three of its most
all of which are now completely paid for. The ope
been about 4 per cent of the cash

MEDICAL SERVICE.

The company of Anzin has practically assumed the entire burden of the care of its employees and to some extent of their families in cases of accidents or sickness. By direction of the administration in 1867, aid of four kinds was ordered to be granted in such cases, viz, medical attendance, medicines, food for the sick, such as bouillon and wine, and pecuniary aid.

A sharp distinction is made between the different services, and especially between the workingmen employed below and those employed above ground, as regards the amount of assistance granted. A special care and solicitude is exercised over the miners proper and the other employees working below ground. In the case of the former the granting of medical assistance is extended to their wives, children, and parents, if living with them at the time. To workingmen employed above ground medical attendance is not extended to the other members of the family, though medical supplies are issued for their use. Medical attendance and medical supplies are also granted to all workingmen on the pension roll, provided their individual pensions do not exceed 1,000 francs ($193) per annum. Regarding the granting of pecuniary aid, the company has issued the following regulations and tariff:

First class.—In cases of severe wounds, such as fracture of the femur, tibia, or humerus, accidents to the head affecting the brain, amputation of limb as the result of an accident, serious burns from hot water or explosion of fire damp, or wounds causing the loss of one or both eyes, there will be granted per fortnight to married workingmen, 30 francs ($5.79); to unmarried workingmen, other than putters, 15 francs ($2.89½), and to putters 10 francs ($1.93).

Second class.—In case of fracture of the clavicle without internal lesion, simple fracture of the forearm, mutilation of the fingers or toes, slight burns, or injuries endangering the sight, to married workingmen, 20 francs ($3.86); to unmarried workingmen, other than putters, 10 francs ($1.93), and to putters, 6 francs ($1.16).

Third class.—In case of slight injuries of any kind, to married workingmen, 10 francs ($1.93); to unmarried workingmen, other than putters, 5 francs (96½ cents), and to putters, 3 francs (58 cents).

For the administration of the health service the company has in its employ eleven physicians, each of whom, with the exception of one, who devotes himself to diseases of the eye, has his particular district. Each has a consultation room, where, during certain hours, he receives all who are able to come to him. The other sick are cared for in their own homes, and a horse and carriage is furnished each physician with which to make his visits.

The expenditures entailed by the maintenance of this medical and relief system is given in a table on page 255.

SAVINGS BANK.

But a few words will be required concerning the encouragement by the company of savings among its employees. Previous to the passage of the act of 1881 creating a national postal savings bank, the company of Anzin, in common with other industrial concerns, stimulated in every way the spirit of saving among its employees. To this end the company created, in 1869, a savings bank in which its employees were encouraged to deposit their savings and upon which they received interest at the rate of 5 per cent for amounts under 2,000 francs ($386) and 4 per cent for amounts over that sum. The national savings bank created in 1881 offered all necessary inducements and guaranties of security. The company therefore reduced the rate of interest paid to 3 per cent, the same as that paid by the Government, and ceased to encourage deposits in its own bank. Thus the number of depositors, that had reached in 1877 a total of 1,431, with deposits of 1,940,011.77 francs ($374,422.27), has now sunk to less than one-third that number and the amount of deposits has been correspondingly decreased.

EDUCATION.

The company first began to occupy itself with the provision of school facilities for the children of its employees in 1873. Previous to 1882, the year in which the law providing for free public instruction was passed, the efforts of the company represented a considerable expense. It erected numerous infant and primary schools and, in connection with the latter, workshops for manual training. At the present time, however, it possesses actually but one school, and its total expenditure for schooling in 1888 was 31,875.45 francs ($6,151.96), divided as follows:

Subsidies to teachers and infant schools	$4,046.14
Fuel for schools	134.02
Prizes in the form of books and savings-bank deposits	142.82
Maintenance of its own school	1,828.98
Total	6,151.96

In addition it maintains a special advanced school conducted by its own engineers for the purpose of educating skilled workingmen, the pupils of which are taken from among the best scholars of the primary schools. The company also pays the tuition and board of two of its young workingmen at the school for boss miners at Douai (École des Maîtres-mineurs de Douai).

Four churches have also been erected and are now owned by the company. All are consecrated to the Catholic faith.

MISCELLANEOUS AID TO WORKINGMEN.

In addition to the various ways for aiding workingmen which have been enumerated, the company contributes to their support in a number of ways that can not well be classified. Of these, the principal items

of expense are the furnishing of fuel free to all of its employees, the furnishing of the first working suit to its miners when they commence work below ground, the granting of 50 centimes ($9\frac{65}{100}$ cents) per day to wives of workingmen during the latter's period of military service, to which is added 25 centimes ($4\frac{83}{100}$ cents) per day for each child they may have, the aiding of orphans until they are of an age to commence work, and the aiding of workingmen generally and their families in cases of distress.

The expenditures of the company for these purposes, as well as for the maintenance of its medical service for the eleven years, 1883 to 1893, inclusive, are given in the following table:

EXPENDITURES OF THE COAL MINING COMPANY OF ANZIN FOR MEDICAL SERVICE, AID, ETC., 1883 TO 1893.

Year.	Medical service (salaries of physicians, medicines, medical supplies, etc.).	Sick and injured.	Old employees, their widows or parents, and orphans.	Employees in need.	Wives and children of employees doing military service.	First working suits, grants to mothers on first communion of their children, etc.	Total expenditures (aid to employees and medical service).	Value of fuel given to employees and pensioners.
1883	$25,908.70	$11,484.08	$14,019.78	$1,397.25	$1,623.47	$1,837.57	$56,270.85	$87,764.32
1884	25,208.13	10,222.69	12,118.64	1,537.88	1,663.61	1,592.44	52,343.39	66,923.60
1885	22,338.24	10,009.18	14,240.28	4,447.32	1,399.11	1,042.39	53,476.52	59,845.48
1886	24,195.44	11,474.29	11,163.26	2,928.20	1,758.23	1,243.38	52,762.80	63,679.00
1887	23,710.02	12,375.26	10,125.12	3,200.76	1,441.27	1,287.43	52,139.86	69,763.71
1888	23,946.23	12,819.24	10,185.97	2,696.99	1,640.02	1,208.72	52,497.17	69,312.09
1889	24,285.21	13,856.41	10,242.93	4,406.18	1,270.95	1,288.70	55,350.38	71,991.70
1890	27,439.79	15,967.15	9,672.24	5,426.46	1,186.28	1,314.33	61,006.25	76,544.96
1891	28,643.96	14,790.26	10,211.20	4,430.58	1,560.65	1,376.40	61,013.05	81,069.26
1892	30,208.12	17,708.19	9,749.06	2,270.74	2,468.61	1,210.42	63,615.14	84,366.09
1893	34,737.99	20,626.65	10,458.47	3,907.96	1,188.97	1,386.36	72,306.40	81,249.91

RECAPITULATION OF THE EXPENDITURES OF THE COAL MINING COMPANY OF ANZIN FOR THE BENEFIT OF ITS EMPLOYEES.

A survey has been made in considerable detail in the foregoing pages of all of the various institutions in which the workingmen of Anzin participate. Concerning the general question of workingmen's institutions it is important to know what is the total expense that the maintenance of these institutions entails upon the company, what pecuniary advantage the sum total of these efforts confers upon the workingmen, and what relation this latter bears to the amount they receive in the way of wages. A recapitulation of the total expenditures of the company for the benefit of its employees has therefore been made in such a way as to bring out these facts for the eleven years, 1883 to 1893.

Following this table is another one similarly constructed, giving the same information for a number of the most important coal mining companies other than that of Anzin. The data for this table were taken from a work entitled L'Organisation du Travail dans les Mines et Particulièrement dans Les Houillères, by Charles Ledoux, engineer in chief of mines, Paris, 1890, and relate to the year 1888.

From the second table it is evident that the company of Anzin by no means holds a unique position in respect to the creation by it of workingmen's institutions. The existence of institutions such as have been described for Anzin is almost universal among the large coal mining companies of France. Wherever material for a comparison of conditions at Anzin with those existing in other mining centers of France could be obtained, the original statement, that in choosing Anzin for a detailed study a typical center had been selected, seems to be justified.

EXPENDITURES OF THE COAL MINING COMPANY OF ANZIN FOR THE BENEFIT OF EMPLOYEES, BY OBJECTS OF EXPENDITURE, 1883 TO 1893.

Year.	Expenditures for—						Total expenditures.	Expenditures per employee.	Per cent of expenditures of earnings.
	Pensions.	Housing.	Schools.	Medical service.	Free fuel.	Direct pecuniary and other aid.			
1883	$38,917.21	$45,159.70	$8,260.91	$25,908.70	$87,764.32	$30,362.15	$236,372.99	$17.34	7.98
1884	41,848.79	44,763.66	7,169.10	25,208.13	66,922.60	27,135.26	a225,665.53	19.55	9.99
1885	53,417.08	44,349.28	4,750.29	22,338.24	59,845.48	31,138.28	215,838.65	20.40	10.12
1886	56,201.53	42,324.80	5,255.30	24,195.44	63,679.00	28,567.36	220,223.43	19.35	9.55
1887	63,953.66	42,878.19	5,194.55	23,710.02	69,763.71	28,429.84	233,929.97	20.55	9.99
1888	83,707.45	43,193.66	5,223.51	23,946.23	69,312.09	28,550.94	253,933.88	22.05	10.70
1889	90,769.40	43,125.42	5,160.57	24,285.21	71,991.70	31,065.17	266,397.47	22.58	10.52
1890	96,970.05	42,401.23	5,121.47	27,439.79	76,544.96	33,566.46	282,043.96	22.53	9.56
1891	123,301.15	43,284.97	5,342.35	28,643.96	81,069.26	32,369.09	314,010.78	24.63	10.08
1892	126,261.71	42,221.30	5,452.11	30,208.12	84,366.09	33,407.02	321,916.35	25.61	10.74
1893	128,915.76	42,179.65	5,447.07	34,737.99	81,249.91	37,568.41	330,098.79	26.01	10.84
Total	904,263.79	475,881.86	62,377.23	290,621.83	812,510.12	342,159.98	a2,900,431.80	.....	.....
Average for the 11 years.	82,205.80	43,261.99	5,670.66	26,420.17	73,864.55	31,105.45	b263,675.62	.....	.....

a This total is $12,616.99 more than the sum of the items. The explanation is not known. The figures are given as reported to the Department.
b See preceding note.

EXPENDITURES OF VARIOUS COAL MINING COMPANIES IN FRANCE FOR THE BENEFIT OF EMPLOYEES, BY OBJECTS OF EXPENDITURE, 1888.

Name of company.	Expenditures for—						Total expenditures.	Expenditures per employee.	Per cent of expenditures of earnings.
	Pensions.	Housing.	Schools.	Medical service.	Free fuel.	Direct pecuniary and other aid.			
Anzin	$83,707.45	$43,193.66	$5,223.51	$23,946.23	$69,312.09	$28,550.94	$253,933.88	$22.05	10.70
Douchy	8,051.60	12,886.94	227.16	2,688.77	9,919.10	7,017.55	40,791.12	29.92	13.00
Liévin	181.03	35,291.63	5,268.38	5,519.55	11,904.86	7,786.69	65,952.14	30.02	15.00
Bessèges	8,370.17	.....	7,561.91	7,847.96	20,059.77	22,887.32	66,727.13	28.73	10.92
Blanzy	19,251.46	30,176.03	33,701.11	7,776.97	61,716.86	50,554.56	203,176.99	38.28	10.80
Courrières	3,849.76	21,616.00	a5,450.38	8,479.40	24,704.00	7,000.57	71,100.11	20.07	9.00
Béthune	.....	.....	.....	.....	.....	.....	96,500.00	31.46	16.00
Naeux	.....	.....	.....	.....	.....	.....	114,935.36	28.14	.....
Lens (b)	.....	.....	.....	.....	.....	.....	158,453.00	29.92	15.00
Montrambert	.....	.....	.....	.....	.....	.....	40,144.00	18.34	8.00
Roche-la-Molière et Firminy	.....	.....	.....	.....	.....	.....	43,260.18	16.02	7.00

a This includes contributions for religious purposes.
b The figures given are for 1885.

From the first of these tables it is possible to follow in a very clear way the progress of institutions and work undertaken by the company of Anzin for the benefit of its employees. Taken in its entirety, the

average expenditure per member has steadily increased. From a sum of 89.83 francs ($17.34) in 1883 the amount increased every year, with the exception of 1886, until it stood at 134.77 francs ($26.01) in 1893.

If the table be still further examined in order to determine the particular items of expenditure that are responsible for this increase, it will be seen that the item of pensions accounts for the entire augmentation. Pensions have increased from 201,643.57 francs ($38,917.21) in 1883 to over three times that sum, or 667,957.30 francs ($128,915.76) in 1893. This fact is but illustrative of the direction toward which more than any other the attention of employers and employees alike throughout France has been turned during the past decade for the improvement of the condition of the working classes. The one great aim of those trying to better the condition of these classes is to insure that in some way or other provision shall be made for workingmen after they have become old and incapacitated for labor. At the present time very nearly a consensus of opinion has been reached that this can only be accomplished through an insurance system to be maintained through the mutual efforts of employers and their employees.

The final column of this table has been introduced in order to show, from year to year, the relative value of these supplemental advantages as compared with the amount the workingmen receive in the way of wages, strictly speaking. It is a matter of considerable importance in considering the whole question of workingmen's institutions, to determine whether with their development the tendency is for the workingmen to receive a larger or smaller portion of their reward in this indirect way, or directly, through the payment of cash wages. The information here afforded is direct upon this point. Though the absolute value of the supplementary advantages per member has increased from 89.83 francs ($17.34) in 1883 to 134.77 francs ($26.01) in 1893, this represents but a slightly greater percentage of wages in later than in earlier years. In the year 1883 the percentage of supplementary advantages of wages, 7.98, seems to have been abnormally low. In 1884, however, it was 9.99, or less than 1 per cent less than it was ten years later, in 1893, when the percentage of supplementary advantages of wages was 10.84.

CONCLUSION.

A position has now been gained from which it is possible to make a general survey of the life of miners and other mine employees at Anzin. Until 13 years of age the future workingman attends a school supported by the joint efforts of the State and the mining company of Anzin. When 13 he enters the employ of the company, and is assigned to light surface work, such as sorting or washing coal. In the course of a few years he is drafted below ground and commences his actual life as a miner. Meanwhile he has become a member of a mutual aid society, from which he is entitled to receive certain benefits in case of sickness or accident. If at all industrious he can

His supplies he will purchase at the stores of which he is a member, and on which he r half year a participation in profits to the e of the value of his purchases. Fuel, a n expense, he receives free from the company.

In the meantime, through payments of an cent of his wages to the National Bank for Ol pany making payments of a like amount, he i a modest pension after he has reached the remainder of his life. If, however, as is freq not desire to cease work, he can postpone the e in which case its amount will be considerably in

Of all the data available, however, for dete the means employed for improving the conditio particular establishment, those of the stabili undoubtedly, of the greatest significance. The employers for a stable body of employees ha of almost all the institutions created or encour the latter's welfare. As far as such an index i of the length of time that workingmen continu a company will register the extent to which offered are appreciated.

Stability of employment is not only a desira pensable to the continued working of the variou been described. A slight inspection, for exam which pension funds are organized, or of the co the acquisition of homes by worki

work, the number of years that they have been employed, and the number leaving the service of the establishment and for what reason. Information on all these points has been secured for the mining company of Anzin.

In the six tables that follow are presented all the facts necessary for establishing the stability of the personnel at Anzin. In the main the tables are self-explanatory and call for but little comment. In them is shown a continuity and stability of employment which, under the conditions of modern industry, it would seem almost impossible to exceed. This is the more remarkable when one considers that Anzin is in the center of the greatest coal-mining region of France and in close proximity to the coal mines of Belgium, and it would be easy for a miner to go from mine to mine in search of employment.

By reference to the table on page 231, giving the ages of employees when they commenced work for the company of Anzin, it will be seen that the service of the company is almost exclusively recruited by the engagement of youths under 15 years of age. During the six years from 1888 to 1893, 49.29 per cent of the total number of new workingmen employed were under that age, and if there be omitted those recorded as commencing work between the ages of 20 and 25, as the result of the completion of their terms of military service, the statement can be made that nearly two-thirds of the employees of the company enter its service as children between the ages of 13 and 14 years.

The first three tables that follow show in detail the ages and length of service of all employees. It is important to know their ages, for, as can be seen in the present case, practically all of those who have been employed but a short time are so youthful that their longer employment would be impossible.

The fourth table is in the nature of a summary, with the element of age, however, omitted. It shows that 12.17 per cent of all employees below ground have been employed 30 years, 27.63 per cent 20 years, and 60.10 per cent 10 years or over. The percentages of all employees are 12.32, 27.83, and 59.82, respectively. If, in calculating these percentages, all employees under 30 years of age be omitted, it will be seen that the very high percentage of 94.58 have been employed 10 years, 63.59 per cent have been employed 20 years, and 28.14 per cent 30 years or more.

The second table on page 263 shows a calculation of the stability of employment on three different dates, in order to determine if there has been any material difference in this respect in recent years. An establishment that is constantly adding to the number of its employees is of course constantly increasing the number of employees that have been employed but a short time, an element which should be taken into consideration in attempting to make any comparisons.

The final table is an analysis of the reasons for which employees left the service of the company. The number leaving voluntarily bears but

an insignificant relation to the total number of employees. Much the larger number leaving resulted from death, old age, or from the necessity of entering the military service.

EMPLOYEES OF THE COAL MINING COMPANY OF ANZIN AT WORK BELOW GROUND, BY AGES AND YEARS OF SERVICE, FEBRUARY, 1892.

Age.	Years of service.												Total.
	Under 1.	1 or under 2.	2 or under 5.	5 or under 10.	10 or under 15.	15 or under 20.	20 or under 25.	25 or under 30.	30 or under 35.	35 or under 40.	40 or under 45.	45 or under 50.	
12													
13	141	8	2										151
14	138	224	16										378
15	55	132	258										445
16	43	39	310	1									393
17	50	28	232	140									450
18	24	22	66	246									358
19	23	22	39	300									384
20	19	19	22	351	1								412
21	9	2	16	331	7								365
22	9	2	6	90	278								385
23	4	1	2	44	297								348
24	5	1	6	28	282								322
25	3	1	3	20	310	3							340
26	5	5	7	27	237	56							337
27	3	3		29	69	192							296
28	3	5	47	239									294
29	3		1	12	26	234							276
30			1	19	24	234	2						280
31	4		4	13	25	223	29						298
32	2	1	1	14	23	97	113						251
33	2		1	12	36	63	123						237
34	4	1		13	20	39	141						218
35	1		1	6	12	29	142	12					203
36	1		2	5	13	24	92	53					190
37			1	9	13	21	61	80					185
38		3	11	12	32	44	85						187
39				7	15	18	32	115					187
40	1		9	10	32	37	82	39	1				211
41				3	9	17	23	55	55				162
42			1	4	5	16	23	18	76				143
43			1	1	9	16	19	21	95				162
44			1	7	11	26	8	20	108				181
45			2	3	11	22	7	14	114	9			182
46					10	16	22	10	94	16			168
47				1	5	13	13	6	31	66			135
48				3	1	17	15	9	33	70			148
49				2	7	16	18	7	20	71			141
50				1	4	12	8	8	21	67	1		122
51				2	4	5	6	13	16	38	23		107
52					4	14	9	5	9	16	40		97
53					4	2	6	6	5	10	36	3	72
54					2	7	10	5	5	7	31	4	71
55					1	3	8		3	2	8	17	42
56					2	2	4	1	4		3	9	25
57					2	1	2	2	2		1	4	14
58					1	4				1	3	9	18
59				1		1		1	1			3	7
60						2	3					2	7
61											1		1
62					1	2	1		1				5
Total.	552	519	1,069	2,006	1,845	1,528	1,107	500	694	373	147	51	10,391

KES OF THE COAL MINING COMPANY OF ANZIN AT WORK ABOVF GROUND, BY AGES AND YEARS OF SERVICE, FEBRUARY, 1892.

	Years of service.											
nder 1.	1 or under 2.	2 or under 5.	5 or under 10.	10 or under 15.	15 or under 20.	20 or under 25.	25 or under 30.	30 or under 35.	35 or under 40.	40 or under 45.	45 or under 50.	Total.
29												29
138	8	1										147
2												2
		1										1
2		3										5
		2	1									3
		1	1									2
	2	1	7									10
2	1	2	4									9
			4									4
		1	4	4								9
				1								1
	1	1	2	4								8
1		2		3								6
1			3	6								10
	1			5	10							16
2			2	1	1							6
	1	1	2	2	8							14
		1	1	1	4							7
		1	1	3	5							10
	1		6	1	5	2						15
		1	1	7	5	5						19
		5	6	3	3	7						24
1		1	2	2	3	1	2					12
			1		2	2	2					7
			2	3	1	3	4					13
1			2	1		4	4					12
			1	2	2	2	2	1				10
	1	1	1	1	2	1	4	1				12
	2		2	3	3		5	2				17
				5	1	2	3	3				14
			1	1	3	1	1	5				12
			5	3	3	4	1	4				20
					2		1	5				8
			2	1		2		7				12
			1	1	1	5	1	3	3			15
				2	2	2	1	2	8			17
			1		4	5		1	9			20
			1	2	6	5	1	1	6			22
			2		2	2		2	5	1		14
					2	3	2	1	5	3		16
				1	2	3	1	1	1	2		11
			1	1		1		2		1		6
			1	2		3	1		1	1		9
			1		2		2		1		2	8
				1							2	3
						1	1				2	4
				2	1			1	1			5
				1			1					2
				1	1							2
							1					1
79	18	26	72	77	86	66	41	42	40	8	6	661

HE COAL MINING COMPANY OF ANZIN, AT WORK B
OUND, BY AGES AND YEARS OF SERVICE, FEBRUARY

Years of service.								
2 or under 5.	5 or under 10.	10 or under 15.	15 or under 20.	20 or under 25.	25 or under 30.	30 or under 35.	35 or under 40.	40 or under 45.
.....	.....	.....	.....	.....	.....	.....	.....	.....
3	.....	.....	.....	.....	.....	.....	.....	.....
16	.....	.....	.....	.....	.....	.....	.....	.....
259	.....	.....	.....	.....	.....	.....	.....	.....
313	1	.....	.....	.....	.....	.....	.....	.....
234	141	.....	.....	.....	.....	.....	.....	.....
67	247	.....	.....	.....	.....	.....	.....	.....
40	307	.....	.....	.....	.....	.....	.....	.....
24	355	1	.....	.....	.....	.....	.....	.....
16	335	7	.....	.....	.....	.....	.....	.....
7	94	282	.....	.....	.....	.....	.....	.....
2	44	298	.....	.....	.....	.....	.....	.....
7	30	286	.....	.....	.....	.....	.....	.....
5	20	313	3	.....	.....	.....	.....	.....
7	30	243	56	.....	.....	.....	.....	.....
.....	29	74	202	.....	.....	.....	.....	.....
47	241	1	1	.....	.....	.....	.....	.....
2	14	28	242	.....	.....	.....	.....	.....
2	20	25	238	2	.....	.....	.....	.....
5	14	28	228	29	.....	.....	.....	.....
1	20	24	102	115	.....	.....	.....	.....
2	13	43	68	128	.....	.....	.....	.....
5	19	23	42	148	.....	.....	.....	.....
2	8	14	32	143	14	.....	.....	.....
2	6	13	26	94	55	.....	.....	.....
1	11	16	22	64	84	.....	.....	.....
11	14	33	44	89	4	.....	.....	.....
.....	8	17	20	34	117	1	.....	.....
10	11	33	39	83	43	2	.....	.....
.....	5	12	20	23	60	57	.....	.....
1	4	10	17	25	21	79	.....	.....
1	2	10	19	20	22	100	.....	.....
1	12	14	29	12	21	112	.....	.....
2	3	11	24	7	15	119	9	.....
.....	2	11	16	24	10	101	16	.....
.....	2	6	14	18	7	34	69	.....
.....	3	3	19	17	10	35	78	.....
.....	3	7	20	23	7	21	80	.....

NUMBER AND PER CENT OF EMPLOYEES OF THE COAL MINING COMPANY OF ANZIN AT WORK BELOW AND ABOVE GROUND, BY YEARS OF SERVICE, FEBRUARY, 1892.

Years of service.	Employees below ground.	Employees above ground.	Total.	Employees below ground (per cent).	Employees above ground (per cent).	Total (per ct.).
Under 1 year	552	179	731	5.31	27.08	6.61
1 or under 2 years	519	18	537	4.99	2.72	4.86
2 or under 5 years	1,069	26	1,095	10.29	3.93	9.91
5 or under 10 years	2,006	72	2,078	19.31	10.89	18.80
10 or under 15 years	1,845	77	1,922	17.76	11.65	17.39
15 or under 20 years	1,528	86	1,614	14.71	13.01	14.60
20 or under 25 years	1,107	66	1,173	10.65	9.99	10.61
25 or under 30 years	500	41	541	4.81	6.20	4.90
30 or under 35 years	694	42	736	6.68	6.36	6.66
35 or under 40 years	373	40	413	3.59	6.05	3.74
40 or under 45 years	147	8	155	1.41	1.21	1.40
45 or under 50 years	51	6	57	.49	.91	.52
Total	10,391	661	11,052	100.00	100.00	100.00

NUMBER AND PER CENT OF EMPLOYEES OF THE COAL MINING COMPANY OF ANZIN, BY YEARS OF SERVICE, SEPTEMBER 6, 1886, DECEMBER 31, 1889, AND FEBRUARY, 1892.

Years of service.	Number.			Per cent.		
	September 6, 1886.	December 31, 1889.	February, 1892.	September 6, 1886.	December 31, 1889.	February, 1892.
Under 1 year	.....	732	731	.....	6.84	6.61
1 or under 2 years	.....	540	537	.....	5.04	4.86
2 or under 5 years	.....	1,032	1,095	.....	9.64	9.91
5 or under 10 years	.....	1,838	2,078	.....	17.16	18.80
10 or under 15 years	.....	1,915	1,922	.....	17.88	17.39
15 or under 20 years	.....	1,792	1,614	.....	16.74	14.60
Total under 20 years	6,649	7,849	7,977	69.85	73.30	72.17
20 or under 25 years	892	1,034	1,173	9.37	9.66	10.61
25 or under 30 years	755	635	541	7.93	5.93	4.90
30 or under 35 years	660	683	736	6.94	6.38	6.66
35 or under 40 years	339	338	413	3.56	3.16	3.74
40 or under 45 years	162	131	155	1.70	1.22	1.40
45 or over	62	38	57	.65	.35	.52
Total	9,519	10,708	11,052	100.00	100.00	100.00

EMPLOYEES LEAVING THE SERVICE OF THE COAL MINING COMPANY OF ANZIN, BY REASONS FOR LEAVING, 1889 TO 1893.

Year.	Voluntarily.				Dismissed.	To enter military service.	Pensioned.	Died.	Total.	Per cent of employees leaving voluntarily and dismissed of total employees.
	To enter service in—		Not specified.	Total.						
	Other mines.	Neighboring industrial establishment.								
1889	54	10	167	231	53	34	33	21	372	2.4
1890	97	37	53	187	85	299	29	37	637	2.2
1891	55	46	64	165	120	304	96	74	759	2.2
1892	103	31	48	182	75	277	192	56	782	2.0
1893	31	19	46	96	72	330	117	79	694	1.3
Total	340	143	378	861	405	1,244	467	267	3,244	2.0
Per cent	10.5	4.4	11.6	26.5	12.5	38.4	14.4	8.2	100.0	.....

In conclusion, attention should be drawn to a point concerning which a study such as the one just made affords information of more than usual value. The material has been presented in such a way as to furnish an opportunity for a statistical comparison of present with former conditions of a body of men, the general and physical conditions of whose labor have remained practically identical. The evidence afforded by such a comparison is irresistible that there has been a steady betterment of the condition of the coal miners of Anzin in almost every element that enters into their life. The age at which they commence work has been advanced, and they consequently enjoy a longer period of schooling. Their hours of labor have been steadily reduced. Average wages have constantly advanced, while there is every reason to believe that the amount of commodities that they will purchase has increased in like or greater ratio. The single matter of housing shows an enormous increase in comfort. A contrasting of the types of houses erected by the company at different periods shows a striking advance by each period over the preceding one. From a dweller in a barrack apartment the miner has become the occupier of an individual cottage with garden attached, and in many cases the owner of his own home. The uncertainties of a possible lack of employment or the cares and anxieties of sickness and approaching old age have been lessened. At the same time the workingman enters more into public life. He comes more into contact with his fellowmen through the exercise of his political rights, and through his participation in the management of the mutual benefit, cooperative, and recreative societies of which he is a member.

The comparisons which have been made throughout the report with conditions elsewhere indicate that the experience of Anzin has been repeated in the other great coal mining centers of France.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

CONNECTICUT.

Eleventh Annual Report of the Bureau of Labor Statistics of the State of Connecticut for the year ending November 30, 1895. Printed by order of the General Assembly. Samuel B. Horne, Commissioner. 280 pp.

This report treats of the following subjects: Poor relief, 101 pages; building and loan associations, 12 pages; condition of manufactures, 66 pages; strikes and lockouts, 14 pages; manual training, 46 pages; laws relating to labor and the first annual report of the State board of mediation and arbitration, 19 pages.

POOR RELIEF.—The object of this inquiry was to ascertain the number of poor in the State and the cost of their maintenance. The statistics for 21 selected towns, covering the years from 1875 to 1894, inclusive, were collected by agents of the bureau. Schedules were also sent by mail to the selectmen of the 168 towns in the State asking for information concerning the number of poor assisted and the expense incurred for the same during the years 1892 and 1894. The amounts reported are only the expenditures by the State and the different towns. They do not include the charity dispensed by individuals or private boards of relief of any character.

The lack of a uniform system of distributing aid and of recording the different transactions, and the paucity of data, especially for the earlier years, render the statistics somewhat incomplete. These and various other matters concerning the advisability of certain classes of relief, the increase or decrease in the numbers assisted and the amounts expended, and the methods prevailing in the different towns, are explained in the text. The two statements that follow present the totals given for the 21 selected towns, the 168 towns, and for the State.

1875	496	502	998	$53, 838. 74	
1876	643	871	1, 514	72, 001. 62	
1877	890	1, 144	2, 034	105, 322. 97	
1878	1, 003	1, 355	2, 358	131, 545. 60	
1879	1, 169	1, 171	2, 340	125, 531. 93	
1880	1, 252	1, 045	2, 297	127, 652. 95	
1881	1, 456	1, 597	3, 053	136, 569. 30	
1882	1, 637	2, 370	4, 007	160, 467. 86	
1883	1, 653	2, 666	4, 319	173, 248. 64	
1884	1, 829	3, 344	5, 173	166, 476. 77	
1885	2, 141	4, 385	6, 526	182, 737. 49	
1886	2, 056	4, 258	6, 314	193, 819. 94	
1887	2, 126	3, 553	5, 679	223, 852. 13	
1888	2, 223	3, 794	6, 017	216, 650. 03	
1889	2, 209	3, 736	5, 945	205, 881. 67	
1890	2, 285	4, 406	6, 691	234, 219. 74	
1891	2, 318	3, 792	6, 110	234, 348. 06	
1892	3, 973	4, 075	8, 048	244, 138. 39	
1893	3, 311	3, 678	6, 989	228, 983. 56	
1894	4, 582	6, 210	10, 792	255, 331. 14	

a No division could be made of the expenses incurred by the city amounts are included in the total, but no corresponding distribution

PERSONS AIDED AND EXPENSES FOR POOR RELIEF FOR

Items.	By the 168 towns of the State.		By the Stat	
	1892.	1894.	1892.	1
Almshouses:				
Persons aided	2, 942	3, 535	*a* 350	
Net expense of maintenance	$178, 563. 44	$203, 322. 88	*a* $6, 707. 39	$
Hospitals, homes, etc.:				
Persons aided	2, 271	2, 526	*a* 1, 289	
Expenses	$185, 775. 48	$187, 347. 37	*a* $216, 245. 02	*b* $19
Outside relief:				
Heads of families aided	2, 990	4, 464	(*c*)	
Other persons aided	4, 189	5, 478	(*c*)	
Paid for rent	$31, 266. 13	$39, 827. 22	.....	.....
Paid for other relief	$290, 900. 33	$363, 273. 25	*a d* $2, 399. 65	*d* $
Total persons aided	12, 392			

for each of the 16 associations, for which data were given in the fourth annual report. The totals are shown in the following statement:

ASSETS OF BUILDING AND LOAN ASSOCIATIONS AT THE CLOSE OF THE FISCAL YEARS 1894 AND 1895.

Items.	1894.	1895.
Mortgage loans	$704, 523. 13	$686, 723. 39
Stock loans	28, 443. 84	40, 603. 52
Cash on hand	48, 285. 14	58, 010. 04
All other assets	9, 352. 91	195, 298. 06
Total	790, 605. 02	980, 635. 01

CONDITION OF MANUFACTURES.—Under this title individual reports from 1,000 establishments, grouped by industries, are published and an extended analysis made of the returns for each industry. The totals of the summary for all industries are as follows:

Establishments reporting	1, 000
Employees July 1, 1892	115, 139
Employees July 1, 1894	98, 617
Employees July 1, 1895	112, 002
Establishments advancing wages since July 1, 1894	33
Establishments reducing wages since July 1, 1894	28
Establishments restoring former rates	106

There were many establishments reported in 1895 that were not in existence in 1892. These establishments reported 1,509 employees. Subtracting this number from the total for 1895, the actual decrease was 4,646 and the percentage of decrease 4.04.

The changes in rates of wages reported were only those that were general in character. There were 2,624 employees affected by advances in wages, the average of the percentages of increase being 8.52. The employees affected in establishments reducing wages numbered 1,287, the average of the percentages of decrease being 8.53. There were 20,190 employees affected by the restoration of wages to a former rate, the average of the percentages of increase being 8.5. The average weekly hours of labor in the 1,000 establishments for the year ending July 1, 1895, not considering the days closed, were 58.07; deducting hours lost by reason of days closed, the average was 54.46.

STRIKES AND LOCKOUTS.—An historical statement is made for each labor disturbance that occurred during the year.

MANUAL TRAINING.—The treatment of this subject is confined to a textual discussion which includes a description of various institutions for manual training in Connecticut and elsewhere.

LABOR LAWS AND MEDIATION AND ARBITRATION.—The laws relating to labor enacted at the January session of the legislature, 1895, are reproduced, and a short account given of the action of the board of mediation and arbitration in assisting in a compromise of a strike of the iron molders employed by the Russell & Erwin Company, of New Britain, Conn.

IOWA.

Sixth Biennial Report of the Bureau of Labor Statistics for the State of Iowa, 1894–95. W. E. O'Bleness, Commissioner. Printed by Order of the General Assembly. 199 pp.

The report presents individual tabulations of returns from 4,160 working men and women engaged in different industries throughout the State. The questions for which the answers were presented were designed to show the actual condition of the laboring classes. No totals for the State or conclusions are presented, the individual reports only being given as a fair and unbiased showing of actual conditions. In addition to the individual tabulations, quotations are given from answers made by workmen to questions concerning the desirability of labor organizations, foreign immigration, the character of work that is preferable (piece or time), and what action would be of the greatest benefit to the wage earners of the country.

MONTANA.

Second Annual Report of the Bureau of Agriculture, Labor, and Industry of Montana for the year ended November 30, 1894. James H. Mills, Commissioner; A. C. Schneider, Chief Clerk. v, 191 pp.

In the extended introductory, reference is made to various subjects, such as methods of work of the bureau, disturbed industrial conditions, free public employment offices, and protection of human life by means of fire escapes. The following subjects are treated in the report proper: Wages and cost of living, 32 pages; investment, wages, and production, 16 pages; precious and semiprecious metals, 8 pages; agriculture and stock growing, 40 pages; miscellaneous, 49 pages.

WAGES AND COST OF LIVING.—The schedule used in collecting the statistics from wage earners contained 48 questions, designed to cover all material facts of public interest relating to the economic and social condition of the workmen. All employees receiving $2,000 or more per annum were excluded, and the presentation limited to those coming clearly under the denomination of "wage earners." The results are summarized for 80 occupations and for the principal labor-employing counties. The tables show the percentage of the total number replying affirmatively or otherwise to the different questions, with the average and aggregate wages, expenses, etc.

The opinions and suggestions of wage earners given in reply to the query, "What legislation, if any, would, in your opinion, promote the general welfare, particularly of wage earners following your vocation?" are reproduced in full.

The mileage, number of employees, working time, and average pay of the different classes of employees are given for each railroad in the State.

The average daily wages of employees in and around mines, mills, and smelters, as computed from statements made by employees in nine counties of the State and covering the occupations of 2,085 men, are given as follows:

AVERAGE DAILY WAGES OF EMPLOYEES OF MINES, MILLS, AND SMELTERS.

Occupation.	Average wages per day.	Occupation.	Average wages per day.	Occupation.	Average wages per day.
Mine employees:		Employees in mines, smelters, and quartz mills—continued.		Employees in mines, smelters, and quartz mills—concluded.	
Miners	$3.37	Bricklayers and masons	$5.33	Furnacemens' helpers	$2.62
Pumpmen	4.00	Carpenters	4.01	Laborers	2.72
Timbermen	3.75	Charge wheelers	2.50	Machinists	4.02
Station tenders	3.50	Concentrator men	3.00	Machinists' helpers	2.85
Carmen	3.12	Crushermen	3.19	Millmen	3.37
Employees in mines, smelters, and quartz mills:		Cooling floor men	3.00	Refiners	5.00
Foremen	4.74	Dippers	4.00	Roasters	2.93
Amalgamators	4.08	Dynamo tenders	3.50	Skimmers	4.25
Blacksmiths	3.85	Engineers	3.85	Trammers	2.87
Blacksmiths' helpers	2.73	Firemen	3.00	Weighers	2.44
Batterymen	3.75	Feeders	3.09	Vannermen	3.00
Boilermakers	4.12	Furnacemen	3.35		

The cost of living is indicated by a presentation of the average rates of board at hotels and boarding houses, average prices of articles of food, and details of receipts and expenses for representative families in different sections of the State.

A list of the labor organizations of the State is accompanied with statistics of the membership.

INVESTMENT, WAGES, AND PRODUCTION.—Reports from 146 manufacturers and 183 establishments engaged in various industries containing information concerning investment, product, employees, wages, hours of work, etc., are grouped and published in detail. As far as possible the average wages for the various classes of labor in the different industries for 1893 and 1894 are placed in comparison.

PRECIOUS AND SEMIPRECIOUS METALS.—The statistical presentation under this title consists of extended quotations from the reports of the United States assay office at Helena, Mont., and the Director of the Mint.

AGRICULTURE AND STOCK GROWING.—Comparative figures are given for 1893 and 1894 of the number and wages of employees of stock growers and farmers; also acreage of land owned and fenced, with character, quantity, and value of the different agricultural products. The number of the different classes of farm animals that perished during the winter and that were killed by wolves are shown, and details concerning the wool clip of 1893 and 1894.

the report may be grouped as follows: Mortgage i
free public employment office, 6 pages; farms,
manufactures, 29 pages; valuation of real es
engines, railroad and sleeping-car property, a
pages; Nebraska's surplus products, 30 pages;
pages; acres under cultivation, 7 pages; irrigati
neous, 182 pages.

MORTGAGE INDEBTEDNESS.—The number and
filed on different classes of property and the num
for each county by months from June, 1893, to May
totals for the calendar years 1892 and 1893 and fo
ending May 31, 1894, with the number of sheriffs'
of foreclosure.

VALUATION OF REAL ESTATE, LIVE STOCK, ST
ROAD AND SLEEPING-CAR PROPERTY, AND TELEG
values are shown by county totals. The real es
true and assessed value for 1890 and the value of
proved property for 1893. The other values are fo
the number, total, and average value of live stoc
with the value of railroad and sleeping-car pro
lines in the State.

NEBRASKA'S SURPLUS PRODUCTS; ASSESSED V
UNDER CULTIVATION.—The quantity of different
keted is given by counties under the title "Nebra
assessed value of property, total assessment in
mills and how apportioned, are shown by counties
under cultivation in different fa

NEW YORK.

Twelfth Annual Report of the Bureau of Statistics of Labor of the State of New York for the year 1894. Transmitted to the legislature February 4, 1895 Thomas J. Dowling, Commissioner. 675 pp.

The subjects treated in this report are as follows: Part I, labor organizations, 423 pages; Part II, prison-made goods, 18 pages; Part III, strikes, lockouts, and boycotts, 77 pages; Appendix, 126 pages. The appendix contains a list of the bureaus of labor in the United States and the proceedings of the tenth annual convention of the National Association of Officials of Bureaus of Labor Statistics.

PART I, LABOR ORGANIZATIONS.—The bureau sent to each trade organization in the State a letter of inquiry containing the following questions: Date of organization; number of members at time of organization; number of members at present time; rate of wages previous to organization; rate of wages at present time; hours of labor per day previous to organization; hours of labor per day at present time. Is improved machinery used in your trade or calling? Has the use of machinery increased the number employed in your trade or calling; and what per cent? Has the use of machinery decreased the number employed in your trade or calling; and what per cent? In your opinion has a reduction of wages been prevented by the fact of the existence of your organization? Have the general conditions in your trade or calling been improved owing to the existence of your organization? Has your organization rendered any aid, financially or otherwise, to its members during the past year? How much? The answers of the various organizations to these questions are printed in detail.

Returns were received from 695 organizations. The following statement shows the results of the summarization of the detail tables which present the statistics relative to wages and hours of labor:

WAGES AND HOURS OF LABOR PRIOR TO ORGANIZATION AND IN 1894, BY INDUSTRIES.

Industries.	Wages, number of organizations reporting—				Hours of labor, number of organizations reporting—			
	Increase.	Decrease.	No change	Total.	Increase.	Decrease.	No change	Total.
Building	136	18	51	205	.....	177	30	207
Cigars, cigarettes, and tobacco	31	3	7	41	.....	40	9	49
Clothing	30	2	6	38	1	27	12	40
Coachmen and livery-stable employees	3	.....	1	4	.....	1	4	5
Food products	8	1	10	19	2	12	5	19
Furniture	1	1	3	5	.....	3	3	6
Glass and terra cotta	4	.....	2	6	.....	3	3	6
Hats, caps, and furs	1	1	1	3	.....	2	2	4
Hotel and restaurant employees	4	1	2	7	.....	5	2	7
Iron and steel	25	18	21	64	.....	20	45	65
Leather	6	3	1	10	.....	1	12	13
Malt and spirituous liquors and mineral waters	16	1	1	18	1	12	5	18
Marine	2	2	4	8	.....	1	5	6
Metals	2	2	2	6	.....	.....	6	6
Musicians and musical instruments	10	.....	3	13	.....	3	10	13

WAGES AND HOURS OF LABOR PRIOR TO ORGANIZATION AND IN 1894, BY INDUSTRIES—Concluded.

Industries.	Wages, number of organizations reporting—				Hours of labor, number of organizations reporting—			
	Increase.	Decrease.	No change	Total.	Increase.	Decrease.	No change	Total.
Printing, binding, engraving, stereotyping, and publishers' supplies	21	2	11	34	.....	17	20	37
Railroad employees (steam)	57	3	25	85	2	27	51	80
Railroad employees (street surface)	1	.....	1	2	.....	2	.....	2
Stone workers	13	1	6	20	.....	19	3	22
Street paving	3	.....	6	9	.....	3	6	9
Textiles	8	1	1	10	.....	8	2	10
Theatrical	3	.....	.....	3	.....	2	2	4
Wood workers	11	.....	1	12	.....	10	2	12
Miscellaneous	6	2	8	16	.....	9	8	17
Total	402	62	174	638	6	404	247	657

There were 49 divisions of working time reported by 656 organizations. Eight hours constituted a day's work in 42 branches of trade, and the eight-hour day was enjoyed by 48,411 members of 169 organizations. The number is nearly one-third of the 155,843 members reported. The daily hours of work and the number of members observing the indicated working time is shown for each organization reported.

Four hundred and seventy-four organizations, with a membership of 121,957, report $511,817.59 as having been expended in benefits during the year, of which amount $106,801.69 was to assist those out of work, $60,207.98 to assist the sick, $93,437.92 in cases of death, $89,150.04 to support strikes, $10,676.74 donated to other labor organizations, and $151,543.22 not classified.

Out of 695 organizations, 371 report that improved machinery is used, 285 report that it is not, and 39 failed to answer the question. Sixty-three organizations report that the introduction of machinery has increased the working force, while 208 state that it has resulted in a reduction of the number of employees, and 47 failed to answer the question.

Five hundred and forty-four organizations reported that the existence of the organization had prevented a reduction in wages, and 96 reported that it had not, while 22 failed to answer the question, and 33 reported that there had been no attempt at reduction of wages. Six hundred and twenty-two organizations reported that the general conditions of labor in their trades had been improved by the existence of the union, 49 that the union had not improved general conditions, while 24 failed to answer the question.

There were 667 organizations that reported their membership as 46,455 at the date of organization, and at the time of reporting in 1894 691 organizations reported their membership at 155,843.

Extended quotations are made from remarks contained in the reports of organizations relative to desired legislation, immigration, and miscellaneous subjects affecting labor.

PART II, PRISON-MADE GOODS.—A law was enacted limiting the number of prisoners engaged in the manufacture of brooms and brushes made of broom corn to 5 per cent of the total number in the State engaged in that industry. This part of the report deals mainly with an investigation ordered by this enactment to determine whether the number employed was in excess of the 5 per cent permitted. The number being found too large, the governor of the State accordingly ordered that it be reduced. The sale of prison-made goods is also discussed.

PART III, STRIKES, LOCKOUTS, AND BOYCOTTS.—These statistics cover the labor disturbances reported as having occurred in the State during the nine years from 1885 to 1893, inclusive, the information being published in detail for each strike, lockout, and boycott.

The details are summarized in the following statements:

RESULTS OF STRIKES, LOCKOUTS, AND BOYCOTTS, BY YEARS, 1885 TO 1893.

Year.	Establishments involved in strikes which were—			Total establishments involved.	Number of persons engaged.	Number of persons who lost positions.
	Successful.	Compromised or partly successful.	Unsuccessful.			
1885	1,202	207	211	1,620	52,442	.....
1886	1,125	847	1,714	3,686	175,369	6,399
1887	732	190	755	1,677	54,240	8,241
1888	501	83	443	1,027	24,092	2,271
1889	873	109	392	1,374	32,783	4,203
1890	5,580	170	512	6,262	93,894	5,220
1891	3,727	78	685	4,490	61,599	3,531
1892	1,541	87	770	2,398	35,824	1,997
1893	1,719	89	225	2,033	27,545	2,374
Total	17,000	1,860	5,707	24,567	557,788	34,236

GAINS AND LOSSES FROM STRIKES, LOCKOUTS, AND BOYCOTTS, BY YEARS, 1885 TO 1893.

Year.	Loss in wages.	Cost to labor organizations.	Estimated gain in wages.	Number engaged and who received increase of wages where wages were involved.	Loss to employers.
1885	$921,934.50	$171,689.13	$906,153.88	10,601	$416,426.00
1886	3,303,281.55	579,857.25	2,403,616.90	31,198	2,606,404.00
1887	2,103,616.45	239,692.78	998,693.55	11,512	1,166,766.20
1888	1,083,653.99	135,357.05	410,053.68	3,869	390,730.00
1889	588,114.81	66,068.23	663,819.76	10,624	533,366.95
1890	1,457,554.32	143,123.85	3,122,883.10	42,097	549,874.43
1891	1,071,113.37	284,057.85	787,022.66	22,194	374,946.50
1892	846,766.34	241,784.06	497,181.06	7,977	355,215.90
1893	395,341.45	34,535.34	535,164.17	7,887	102,680.10
Total	11,681,376.78	1,896,165.54	10,324,588.76	147,959	6,496,410.08

NORTH CAROLINA.

Eighth Annual Report of the Bureau of Labor Statistics of North Carolina for the year 1894. B. R. Lacy, Commissioner. 304 pp.

The report treats of the following subjects: Statistics of and letters concerning cotton, woolen, and other factories, 86 pages; agricultural statistics and views of farmers, 100 pages; reports from and views of mechanics, 61 pages; the fishery industry, 9 pages; statistics of employees and wages of railroads, 5 pages; organized labor, 17 pages; miscellaneous, 26 pages.

STATISTICS OF AND LETTERS CONCERNING COTTON, WOOLEN, AND OTHER FACTORIES.—These statistics were obtained by means of a circular letter. Reports were received from a number of factories engaged in various industries in different sections of the State. These reports relate to the character of goods manufactured, number of spindles and looms, days in operation, hours constituting a day's work, advisability of reducing working time, average daily wages, etc. The data are presented in detail for each establishment, arranged by counties. The facts are summarized by counties for some industries, but no general average for the State is attempted.

AGRICULTURAL STATISTICS AND VIEWS OF FARMERS.—The information given under this title was obtained from the best and most influential farmers in the State. The wages and other compensation of farm laborers and their condition morally, socially, and financially are shown. The individual returns are presented in full and the averages given by counties and for the State. The averages for the State show that the working day for the year is about nine hours, and the average wages per month for laborers, $9, with extras for married men. The average for women was $5 and for children $3 per month. About 66⅔ per cent of the farmers report a decrease in wages, and the remainder say there has been no change. Numerous letters from farmers and others in different sections of the State expressing views on various phases of agricultural pursuits follow the statistics.

REPORTS FROM AND VIEWS OF MECHANICS.—This presentation covers information concerning the condition of trade, wages, methods of payment, effect of labor-saving machinery on wages, apprenticeship and age at which children should engage in the different trades, cost of living, and social and moral conditions. The individual reports are published and summarized by trades. The statistics are accompanied by letters from a number of mechanics expressing views as to the legislation needed for the elevation of the labor classes.

STATISTICS OF EMPLOYEES AND WAGES OF RAILROADS.—These statistics show the number of the different classes of employees and the average daily wages for each class for each railroad of the State.

ORGANIZED LABOR.—The chapter on this subject is composed of ers from various labor organizations in the State, describing the anization and setting forth its objects and purposes; also expressing ws on various subjects pertaining to labor.

NORTH DAKOTA.

rd Biennial Report of the Commissioner of Agriculture and Labor to he Governor of North Dakota for the two years ending June 30, 1894. elson Williams, Commissioner. 332, lxiii pp.

n addition to introductory remarks concerning the methods of col- ing and the use of statistics, the first 24 pages of this report contain ies of letters from a number of persons who have had experience in cheese and creamery business of the State, giving reasons for the line of the industry during the past two or three years. Attention lso called to a pamphlet issued under the direction of the bureau taining information concerning the Russian thistle. The subjects ated in the report may be grouped as follows: Agricultural statis- s, 59 pages; financial and census statistics, 131 pages; cost of pro- ing wheat and remarks of farmers, 159 pages; cost of producing n, world's crop of wheat, 9 pages; industrial statistics, 11 pages.

AGRICULTURAL STATISTICS.—The average yield per acre, and in ne instances the value of the different crops and other farm products, shown in detail by county and State totals. Comparisons are made the yearly production, acreage, and average yield per acre of the ncipal products, by county totals, from 1888 to 1893, inclusive, and number and size of farms given, with the acreage under cultivation 1893 and 1894. The totals for some of the products enumerated as follows:

ACREAGE AND PRODUCTION OF VARIOUS AGRICULTURAL PRODUCTS, 1893.

Product.	1893.					Acres sown, 1894.
	Acres sown.		Acres harvested.		Total product (bushels).	
	Number.	Average yield per acre (bushels).	Number.	Average yield per acre (bushels).		
at	3,019,253	10.51	2,902,301	10.93	31,732,169	3,037,643
	502,447	20.89	483,844	21.70	10,498,451	548,369
ey	227,250	17.57	218,255	18.30	3,993,236	258,252
	57,467	5.75	53,336	6.19	330,214	110.365
	40,959	8.98	38,236	9.62	367,976	52,099
	15,582	a 15.80	.....	.....	245,734	38,696
toes	15,783	82.31	.....	.....	1,299,090	19,627

The figures here apparently should be 15.77; those given are, however, according to the original.

FINANCIAL AND CENSUS STATISTICS.—The number of persons essed and the number and assessed value of live stock and of all sonal property is given by county and State totals. Assessed valu-

was as follows: 1891, 2,847,125; 1892, 2,8
The average cost per acre and the total fo
in detail for each return, and the totals a
the State summarized. The results are c
wheat sown and harvested by the use of—firs
broadcast and binders; third, drills and h
cast and headers. The numerous items e
entering into the total cost should be consid
results with other computations concerning
is stated that the results shown for 1893 ca
mately correct average for that year, but the
can not be regarded as so accurately represe
those years were not numerous enough to
average cost per acre and per bushel by the
is as follows:

AVERAGE COST OF PRODUCING WHEAT,

Sown and harvested by—	1891.		
	Per acre.	Per bushel.	Per
Drills and binders	$9.990	$0.347	$
Broadcast and binders	9.084	.391	
Drills and headers	7.429	.397	
Broadcast and headers	7.869	.372	
Average	9.253	.365	

INDUSTRIAL STATISTICS.—The number o
ers, capital invested, cost of

manufacture of pig iron, 128 pages; statistics of manufactures, 113 pages; mine accidents, 26 pages.

WOMEN IN INDUSTRY; BUILDING TRADES.—The presentations concerning these subjects consist of quotations from numerous letters from women employees in different industries and from men engaged in the building trades. These letters pertain to the treatment of employees, wages, apprenticeship, etc. Tabulations are also given for a number of reports from women engaged in various industries, presenting information concerning nationality, cost of board, wages, time of payment, comparative wages of men, hours of work, and pay for time lost by sickness or vacation. The reports tabulated for the building trades show the range of wages from 1890 to 1894 and answers to numerous questions concerning wages, hours of labor, apprenticeship, etc. The tabulations give detailed information as to conditions prevailing in different industries throughout the State.

STRIKES.—A short history is given of the most notable strikes that occurred in the State during the year. The total estimated loss in wages from strikes and lockouts in Pennsylvania from 1881 to 1894 is given as $25,179,210. The industry, locality, number of persons engaged, date of beginning and ending, and other facts are shown for the strikes and lockouts that occurred in the State during 1894.

MANUFACTURE OF PIG IRON.—A detailed description and a historical sketch are given of the pig-iron industry of the State. The results of chemical analyses are shown for the different kinds of ore, the production is compared with the production of other States, and the present status of the industry and the methods and cost of manufacture are treated.

STATISTICS OF MANUFACTURES.—Facts are given relative to the number of persons employed, wages paid, and value of product for 412 manufacturing plants for which returns were received for 1894 and comparative figures given for 1892 and 1893. Reports were not secured from all the plants in the State, but from a sufficient number, it was believed, to form correct general deductions. The results are summarized as follows:

EMPLOYEES, WAGES, AND VALUE OF PRODUCT OF 412 MANUFACTURING ESTABLISHMENTS, 1892, 1893, AND 1894.

Items.	1892.	1893.	1894.	Per cent of decrease.	
				1892 to 1893.	1893 to 1894.
Average number of employees	149,690	132,653	116,310	11.38	12.32
Total wages	$72,575,550	$60,629,740	$48,268,005	16.46	20.39
Value of product	$286,402,751	$236,919,298	$191,492,115	17.28	19.17

Various reasons are given for the decrease in the different industries. The following statement is presented to show the decrease in employees by industries:

EMPLOYEES OF 412 MANUFACTURING ESTABLISHMENTS, BY INDUSTRIES, 1892, 1893, AND 1894.

Industry.	1892.	1893.	1894.
Iron	103,471	92,890	79,829
Carpets	4,648	4,097	3,623
Hosiery	1,786	1,547	1,513
Woolen	5,390	4,543	4,001
Cotton	3,818	3,490	3,093
Glass	7,239	6,579	5,152
Miscellaneous	23,338	19,507	19,099
Total	149,690	132,653	116,310

MINE ACCIDENTS.—The statistics relating to accidents in coal mines were obtained from the reports of the mine inspectors, and are as follows:

ACCIDENTS IN COAL MINES, 1889 TO 1893.

	1889.	1890.	1891.	1892.	1893.
Anthracite coal:					
Product per employee, tons	242	281	360	352	342
Fatal accidents	384	378	427	396	458
Employees to each fatal accident	312	311	288	327	303
Employees to each nonfatal accident	120	116	122	127	129
Tons mined to each fatal accident	101,490	106,260	103,923	115,501	103,691
Tons mined to each nonfatal accident	39,051½	39,729	44,253½	44,817½	44,134
Bituminous coal:					
Product per employee, tons	565	609	564	590	531
Fatal accidents	105	146	237	133	131
Employees to each fatal accident	581	458	312	592	1,624
Employees to each nonfatal accident	203	177	235	200	236
Tons mined to each fatal accident	329,101	273,420	176,319	350,199	331,465
Tons mined to each nonfatal accident	114,803	107,609½	133,081½	118,515½	125,457

The principal provisions of the different laws that have regulated mining and mine inspection in the State are quoted. The methods of enforcing the various provisions and the effect the enactments have had in preserving the health and lives of those engaged in mining are discussed, numerous quotations being made from the reports of the different inspectors.

RHODE ISLAND.

Eighth Annual Report of the Commissioner of Industrial Statistics, made to the General Assembly at its January Session, 1895. Henry E. Tiepke, Commissioner. viii, 327 pp.

This report contains the result of an investigation of the textile manufactures of the State, the condition of skilled labor in that branch of industry, and the retail prices of food and fuel. These three subjects were chosen in 1893 as the basis of a permanent line of inquiry which should annually cover certain specific subjects. The space allotted to each subject in the report for 1894 is as follows: Employees returns, textile industries, 224 pages; retail prices, 43 pages; statistics of manufactures, textile industries, 55 pages.

EMPLOYEES RETURNS, TEXTILE INDUSTRIES.—These returns show for each of 2,299 employees in the cotton, woolen, and mixed textile industries numerous facts concerning their civil and social conditions. The returns are summarized by towns and for the State. The totals for some of the items shown for all three branches of the industry are as follows:

Number of returns	2,299
Married	1,559
Single	690
Widowers	50
Native born	827
Foreign born	1,472
Largest number in family	15
Smallest number in family	2
Number owning homes	245
Number free from incumbrance	88
Number hiring tenements (39 also own homes)	1,373
Highest daily wages	$6.00
Lowest daily wages	.40
Number receiving an increase in wages during the year	32
Number receiving a decrease in wages during the year	1,367
Number unemployed during a portion of the year	1,692

RETAIL PRICES.—The average retail prices of different articles of food and fuel are shown by cities, towns, counties, and for the State. The summary for the State is as follows:

AVERAGE RETAIL PRICES OF FOOD AND FUEL FOR THE STATE, 1894.

Articles.	1894.			
	January.	April.	July.	October.
Apples, per peck	$0.438	$0.532	$0.304	$0.243
Beans, per peck	.661	.640	.669	.655
Beef (soup or corned), per pound	.071	.068	.070	.066
Beef (roasting), per pound	.136	.131	.138	.132
Bread, per loaf	.074	.074	.072	.066
Butter, per pound	.335	.289	.264	.304
Cabbage, per pound	.021	.026	.020	.019
Cheese, per pound	.159	.160	.152	.155
Coal (white ash stove), per ton	6.450	6.280	5.710	5.650
Codfish, per pound	.072	.073	.072	.072
Corn meal, per pound	.026	.026	.026	.026
Cracked wheat, per pound	.053	.035	.048	.048
Crackers (common), per pound	.076	.074	.074	.073
Dried apples, per pound	.134	.140	.154	.125
Eggs, per dozen	.338	.188	.224	.289
Fresh fish (cod), per pound	.094	.095	.092	.090
Fresh fish (haddock), per pound	.080	.082	.082	.079
Flour (family), per barrel	4.830	4.630	4.510	4.180
Hams (smoked), per pound	.125	.120	.142	.131
Kerosene oil, per gallon	.100	.099	.098	.097
Lard, per pound	.116	.107	.107	.110
Mackerel (salt), per pound	.132	.128	.124	.127
Milk, per quart	.059	.055	.053	.059
Molasses, per gallon	.517	.512	.507	.507
Mutton, per pound	.106	.105	.123	.097
Oatmeal, per pound	.049	.048	.050	.049
Onions, per quart	.043	.041	.050	.042
Pickles, per quart	.130	.129	.132	.130
Pork (salt), per pound	.117	.105	.106	.110
Potatoes, per peck	.250	.236	.260	.222
Raisins, per pound	.105	.101	.101	.099
Rye meal, per pound	.031	.031	.031	.030
Salt, per pound	.017	.017	.016	.016
Soap (hard), per pound	.052	.052	.053	.052
Sugar, per pound	.052	.051	.051	.052
Tea (common), per pound	.453	.444	.440	.440
Tripe, per pound	.072	.069	.072	.070
Vinegar, per gallon	.245	.245	.246	.241
Wood (sawed and split), per cord	7.620	7.400	7.690	7.540

STATISTICS OF MANUFACTURES, TEXTILE INDUSTRIES.—The bureau secured reports from 121 manufacturers, covering the operations of their establishments during 1893 and 1894. Fifty-six of these reports were for the cotton industry, 44 for the woolen industry, 10 for print works, dyeworks, and bleacheries, 8 for hosiery and knit goods, and 3 for silk and silk goods. The statistics are given in detail for each industry. A summary for the 121 establishments is presented in the following statement:

STATISTICS OF 121 MANUFACTURING ESTABLISHMENTS, 1893 AND 1894.

Items.	1893.	1894.	Increase (+) or decrease (—).	
			Amount.	Per cent.
Establishments	121	121	.....	.....
Private firms	58	57	—1	—1.72
Partners:				
Male	96	86	—10	—10.42
Special	7	19	+12	+171.43
Total	103	105	+2	+1.94
Corporations	63	64	+1	+1.59
Stockholders:				
Male	702	786	+84	+11.97
Female	347	382	+35	+10.09
Banks, trustees, etc	84	104	+20	+23.81
Total	1,133	1,272	+139	+12.27
Total partners and stockholders	1,236	1,377	+141	+11.41
Capital invested	$37,578,111	$39,113,530	+$1,535,419	+4.09
Employees:				
Greatest number	30,352	28,618	—1,734	—5.71
Smallest	26,570	20,822	—5,748	—21.63
Average	28,704	25,773	—2,931	—10.21
Total wages	$10,466,032	$8,436,246	—$2,029,786	—19.39
Average annual wages	$364.62	$327.33	—$37.29	—10.23
Average days in operation	282.05	251.68	—30.37	—10.77
Cost of materials used	$27,496,995	$21,130,276	—$6,366,719	—23.15
Value of goods made and work done	$48,405,877	$37,404,848	—$11,001,029	—22.72

TENNESSEE.

Fourth Annual Report of the Bureau of Labor, Statistics, and Mines to the Forty-ninth General Assembly of the State of Tennessee. January, 1895. John E. Lloyd, Commissioner. 200 pp.

The contents of the report are grouped as follows: Introduction, 54 pages; statistics of mines and mine inspection, 56 pages; miscellaneous, 86 pages.

INTRODUCTION.—A short sketch is given of the financial and industrial depression, which is followed by articles on the relation between capital and labor, arbitration, and the importance of statistics, also recommendations concerning additional legislation pertaining to the work of the bureau. Sketches are also given of the Chicago strike and the coal miners' great strike of April 21, 1894.

STATISTICS OF MINES AND MINE INSPECTION.—There was reported *as mined* in Tennessee during the year 1894, 2,471,437 tons of coal, show-

ıg an increase over 1893 of 1,041,469 tons. The mines of the State ave employment to 2,799 miners, 274 labor miners, 251 trappers, 112 rivers, and 328 men employed in offices, shops, and yards.

The number of the different classes of employees, number of accients, animals, and locomotives in use, kegs of powder used, wages, ıd quantity of coal mined are shown for each mine, the mines being rouped for the three districts into which the State is divided.

The report of inspection, in addition to giving the locality of the ines and names of the superintendents, shows the method of ventilatıg, condition of air courses, condition of entries and doors, also the ıbic feet of air per minute at inlet and outlet, and remarks concerning ıe general condition of the mine at time of inspection and additions r changes required by the inspector. The results are shown for two ıspections made during the year.

The names of the men who received injuries resulting fatally are ven with the name and location of the mine, also the testimony given ıd the verdict of the coroner's jury in each case. The report also ıows the result of the analysis of the coal for each mine in the State.

MISCELLANEOUS.—Under this head are grouped articles on different ıbjects. The phosphate deposits of the State are treated with conderable detail. This mineral was first discovered in Lewis County, enn., during the latter part of 1893, and the deposits are now shown be quite extensive. The article is accompanied with a tabular escription of the different phosphate beds. In an article on "manıanese" it is stated that the first manganese mined in the United States as mined in Tennessee in 1837, but comparatively nothing has been one to develop the deposits, though manganese of a high grade exists large quantities in nearly every county in east Tennessee. The fferent varities of marble found in the State are described in an arti-e on that subject. The names and locations of the different cotton ıd woolen mills in the State are shown; also a synopsis of the statis-cs of farms, homes, and mortgages for the State, as published by the leventh Census of the United States. An appendix gives the report the Chicago strike by the United States Strike Commission.

WEST VIRGINIA.

eport of the Commissioner of Labor of the State of West Virginia, 1893–1894. John M. Sydenstricker, Commissioner. 211 pp.

This is the first annual report of the commissioner of labor of West irginia, and covers the year ending June 30, 1894. The introductory, hich refers to the needs of the bureau, and gives a copy of the law ıder which it was organized, is followed by a discussion of the "funcons and value of labor statistics," and the volume is closed with a eatise on the "financial and industrial depression." The statistics

presented are grouped as follows: Laborers' statistics, 23 pages; railroad statistics, 4 pages; coal-mine operators' statistics, 11 pages; manufacturing and mechanical industries, 33 pages; agricultural statistics, 13 pages; coal, coke, and oil statistics, 31 pages; building and loan associations, 30 pages; farms, homes, and mortgages, 19 pages.

LABORERS' STATISTICS.—The individual reports of 189 laborers engaged in various occupations in different sections of the State are given in full. The information was collected by correspondence, and consists of replies to questions concerning nativity, residence, name of employer, occupation, hours of labor, earnings of self and family, cost of living, character of employment of wife and children, education of children, deductions from wages, apprenticeship, increase or decrease in wages, and cost of living, savings, debts, etc.

RAILROAD STATISTICS.—Statistics are given in detail for each of 25 railroads, showing for the State the miles of road, the average number of employees during the year, the total number at the time of making the report, the number of each class of employees, and the average monthly and total wages for the year.

MANUFACTURING AND MECHANICAL INDUSTRIES.—Reports are published in full for each of 77 establishments showing answers to questions concerning the value of buildings, land, and machinery, cost of materials, value of product, and details concerning employees and wages. In addition the report of the Eleventh Census of the United States relating to manufacturing and mechanical industries is reproduced.

AGRICULTURAL STATISTICS.—The bureau secured reports from a number of farmers in different sections of the State which are published in detail, by counties, and contain information pertaining to the size, the entire value of farms, and the value of the portion used in farming operations, value of personal property and of farm products, expenses of farming, yield, and value of different crops, etc.

COAL, COKE, AND OIL STATISTICS.—The statistics concerning the production for each of these industries in the State are shown in detail by totals for districts and counties, with percentages of increase or decrease. It is stated that the State ranks fourth in the coal-producing States of the country. The product increased from 672,000 short tons in 1873 to 10,708,578 short tons in 1893. The coke product increased from 138,755 short tons in 1880 to 1,062,076 short tons in 1893, and the petroleum from 120,000 barrels in 1876 to 8,445,412 barrels in 1893. A list of the names and addresses of the coal operators of the State is given, with statistics concerning investment, thickness of seam, days mines were worked during the year, output, number of miners and other employees, and total wages paid different classes.

BUILDING AND LOAN ASSOCIATIONS.—The reports for 56 associations in the State are shown in detail, and convenient summaries made of the statistics for a number of representative associations.

NINTH REPORT ON THE ANNUAL STATISTICS OF MANUFACTURES IN MASSACHUSETTS.

The Annual Statistics of Manufactures, 1894. Ninth Report. xvi, 229 pp. (Issued by the Bureau of Statistics of Labor, Horace G. Wadlin, Chief.)

This report consists of an introduction, 3 pages; tables presenting the statistics in detail, 165 pages; the analysis, 83 pages. There are also 49 pages devoted to an industrial chronology of the State, which gives for each town and city the principal events affecting the industrial establishments during 1894.

The statistics are not shown for all the manufacturing and mechanical industries of the State, the report being confined to a comparison of returns from the same establishments reporting for the different years. Comparisons are made for 4,093 establishments for 1893 and 1894, for 3,073 establishments for the five years from 1890 to 1894, inclusive, and for 857 establishments for the ten years from 1885 to 1894, inclusive. The statistics presented in this synopsis have been selected principally from those given for 1893 and 1894, to which the major portion of the report is devoted.

Reports were received from 4,486 establishments for 1894; of this number 4,093 are compared with reports for 1893. These reports are grouped in 75 classified industries, and reflect the industrial conditions prevailing in the State during the two years.

The 4,093 establishments were conducted during 1894 by 3,183 private firms and 869 corporations, which were managed by 43,337 individuals, of whom 5,056 were partners and 38,281 stockholders. Of the partners 95.63 per cent were males, 2.49 per cent females, and 1.88 per cent estates, etc. Of the stockholders 56.45 per cent were males, 32.55 per cent females, and 11 per cent banks, trustees, etc. Considering the partners and stockholders in the aggregate, 61.02 per cent were males, 29.05 per cent were females, and 9.93 per cent banks, trustees, etc.

The increase or decrease in capital invested, wages paid, stock used, and goods made and work done in 1894 as compared with 1893 are shown in the two statements which follow for each of the 9 leading industries of the State, and for the remaining 66, of the 75 referred to above, considered together.

STATISTICS OF MANUFACTURES IN 75 INDUSTRIES, 1893 AND 1894.

Industries.	Year.	Establishments.	Capital invested.	Wages paid.	Stock used.	Goods made and work done.
Boots and shoes	1893	638	$26, 084, 810	$20, 477, 354	$49, 901, 149	$84, 425, 319
	1894	638	26, 125, 879	20, 082, 006	48, 536, 031	82, 479, 517
Carpetings	1893	11	7, 993, 248	1, 589, 019	4, 787, 252	7, 427, 385
	1894	11	7, 277, 249	1, 329, 350	3, 621, 574	5, 760, 705
Cotton goods	1893	148	115, 110, 469	24, 547, 036	46, 150, 475	85, 829, 812
	1894	148	114, 013, 597	21, 863, 643	41, 893, 414	74, 985, 327
Leather	1893	141	7, 939, 915	2, 797, 042	11, 381, 709	16, 063, 989
	1894	141	8, 344, 321	2, 722, 360	10, 997, 498	15, 563, 653
Machines and machinery	1893	322	30, 447, 599	8, 613, 264	9, 095, 079	25, 387, 721
	1894	322	30, 414, 153	7, 276, 856	7, 964, 667	21, 774, 080
Metals and metallic goods	1893	327	19, 924, 086	6, 628, 730	10, 585, 088	22, 361, 691
	1894	327	19, 367, 325	6, 591, 555	9, 186, 323	19, 363, 367
Paper and paper goods	1893	98	24, 497, 673	4, 082, 892	14, 914, 112	23, 682, 831
	1894	98	24, 881, 825	3, 961, 597	13, 570, 057	22, 217, 777
Woolen goods	1893	115	25, 233, 739	5, 747, 269	16, 377, 058	27, 778, 635
	1894	115	24, 094, 195	4, 887, 984	13, 019, 911	22, 284, 958
Worsted goods	1893	21	13, 738, 952	3, 334, 653	10, 434, 830	16, 240, 380
	1894	21	15, 225, 680	2, 903, 940	8, 587, 957	13, 347, 789
Other industries (66)	1893	2, 272	160, 150, 654	44, 678, 678	146, 612, 728	243, 740, 268
	1894	2, 272	147, 903, 412	39, 483, 794	129, 834, 604	218, 367, 401
Total	1893	4, 093	431, 121, 145	122, 495, 937	320, 239, 480	552, 938, 022
	1894	4, 093	417, 647, 636	111, 103, 085	287, 212, 036	496, 144, 574

DECREASE IN MANUFACTURES IN 1894 AS COMPARED WITH 1893 IN 75 INDUSTRIES.

Industries.	Decrease in—							
	Capital.		Wages.		Stock used.		Goods made and work done.	
	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.
Boots and shoes	a $41, 069	a 0. 16	$395, 348	1. 93	$1, 365, 118	2. 74	$1, 945, 802	2. 30
Carpetings	715, 999	8. 96	259, 669	16. 34	1, 165, 678	24. 35	1, 666, 680	22. 44
Cotton goods	1, 096, 872	. 95	2, 683, 393	10. 93	4, 257, 061	9. 22	10, 844, 485	12. 63
Leather	a 404, 406	a 5. 09	74, 682	2. 67	384, 211	3. 38	500, 327	3. 11
Machines and machinery	33, 446	. 11	1, 336, 408	15. 52	1, 130, 412	12. 43	3, 613, 641	14. 23
Metals and metallic goods	556, 761	2. 79	37, 175	. 56	1, 398, 765	13. 21	2, 998, 324	13. 41
Paper and paper goods	a 384, 152	a 1. 57	121, 295	2. 97	1, 344, 055	9. 01	1, 465, 054	6. 19
Woolen goods	1, 139, 544	4. 52	859, 285	14. 95	3, 357, 147	20. 50	5, 493, 677	19. 78
Worsted goods	a 1, 486, 728	a 10. 82	430, 713	12. 92	1, 846, 873	17. 70	2, 892, 591	17. 81
Other industries (66)	12, 247, 242	7. 65	5, 194, 884	11. 63	16, 778, 124	11. 44	25, 372, 867	10. 41
Total	13, 473, 509	3. 13	11, 392, 852	9. 30	33, 027, 444	10. 31	56, 793, 448	10. 27

a Increase.

The term "capital invested" used in compiling these statistics does not mean merely cash capital or capital stock, but includes all forms of capital devoted to production, such as notes, bills receivable, and value of land, machinery, and stock on hand or in process of manufacture. Inasmuch as some of the elements included as capital are variable from year to year, it follows that apparently wide fluctuations in the amount of capital invested will sometimes appear in the returns. A reduction in capital does not, of course, imply retrogression.

Four of the 9 leading industries show an increase and 5 a decrease in the amount of capital invested, the decrease for the 75 industries amounting to 3.13 per cent. A decrease is shown for wages, stock used, and value of goods made and work done in each of the 9 selected and *for the total of* the 75 industries.

The following comparative statement presents statistics for 1893 and 1894 concerning the number of employees and the average yearly wages paid in each of the 9 selected industries, and in the 66 other industries considered together. This and the two following statements, giving statistics of employees, include wage earners only; officers, clerks, or other salaried persons are not included.

EMPLOYEES AND AVERAGE WAGES IN 75 INDUSTRIES, 1893 AND 1894.

Industries.	Year.	Establishments.	Number of employees.			Average wages per year.
			Average.	Smallest.	Greatest.	
Boots and shoes	1893	638	41,253	31,506	49,744	$496.38
	1894	638	40,863	32,154	48,151	491.45
Carpetings	1893	11	4,335	1,917	5,031	366.56
	1894	11	3,744	1,983	4,667	355.06
Cotton goods	1893	148	71,506	59,729	76,711	343.29
	1894	148	68,235	55,164	76,094	320.42
Leather	1893	141	5,666	3,866	7,289	493.65
	1894	141	5,728	4,521	7,129	475.27
Machines and machinery	1893	322	15,806	11,772	19,108	544.94
	1894	322	13,581	10,688	16,140	535.81
Metals and metallic goods	1893	327	13,067	10,299	15,172	507.29
	1894	327	11,754	9,580	13,626	560.79
Paper and paper goods	1893	98	9,924	8,244	11,012	411.42
	1894	98	9,665	8,148	10,787	409.89
Woolen goods	1893	115	15,520	11,215	17,989	370.31
	1894	115	14,261	10,163	16,703	342.75
Worsted goods	1893	21	9,404	6,979	10,790	*a* 354.28
	1894	21	9,222	5,590	11,275	314.89
Other industries (66)	1893	2,272	94,387	68,734	115,917	*b* 437.36
	1894	2,272	86,345	68,432	105,595	457.28
Total	1893	4,093	280,868	214,261	328,763	436.13
	1894	4,093	263,398	206,423	310,167	421.81

a Figures here apparently should be $354.60; those given are, however, according to the original.
b Figures here apparently should be $473.36; those given are, however, according to the original.

The total for the 75 industries given in the above statement shows a decrease for 1894 in the average, greatest, and smallest number of persons employed, and in the average annual wages. The decrease in the average wages amounted to $14.32, or 3.28 per cent.

Considering the total for the 75 industries, the per cent of males and females of the whole number employed at each specified weekly rate of wages is shown in the following statement:

PER CENT OF MALES AND FEMALES OF THE WHOLE NUMBER EMPLOYED AT SPECIFIED WEEKLY WAGES, 1893 AND 1894.

Weekly wages.	1893.		1894.	
	Males.	Females.	Males.	Females.
Under $5	37.64	62.36	36.51	63.49
$5 or under $6	34.47	65.53	35.42	64.58
$6 or under $7	43.39	56.61	48.11	51.89
$7 or under $8	57.03	42.97	58.77	41.23
$8 or under $9	63.50	36.50	66.02	33.98
$9 or under $10	79.03	20.97	81.35	18.65
$10 or under $12	84.85	15.15	87.08	12.92
$12 or under $15	93.25	6.75	93.28	6.72
$15 or under $20	97.02	2.98	96.82	3.18
$20 or over	99.07	.93	98.00	2.00
Total	66.28	33.72	65.49	34.51

From the above statement it appears that the proportion of males in each wage class increases after the "$5 or under $6" wage limit is passed, while the proportion of females correspondingly declines.

In the following statement, which comprises the 75 industries, the total number of males, the total number of females, and the total number of employees of both sexes are each considered as representing 100 per cent, and the number of employees in each wage class constitutes parts of this aggregate.

PER CENT OF THE TOTAL MALES AND FEMALES EMPLOYED AT SPECIFIED WEEKLY WAGES, 1893 AND 1894.

Weekly wages.	1893.			1894.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under $5	7.50	24.41	13.20	8.56	28.27	15.36
$5 or under $6	4.79	17.89	9.21	5.71	19.76	10.56
$6 or under $7	7.55	19.37	11.54	8.86	18.14	12.06
$7 or under $8	9.00	13.33	10.46	9.72	12.95	10.84
$8 or under $9	8.69	9.82	9.07	8.72	8.51	8.65
$9 or under $10	12.87	6.71	10.79	12.25	5.33	9.86
$10 or under $12	14.67	5.15	11.46	14.05	3.95	10.56
$12 or under $15	17.10	2.43	12.15	16.04	2.19	11.26
$15 or under $20	13.36	.81	9.13	11.91	.74	8.06
$20 or over	4.47	.08	2.99	4.18	.16	2.79
Total	100.00	100.00	100.00	100.00	100.00	100.00

The following comparative statement shows the average proportion of business done and the average number of days in operation for the 9 selected industries and for the 66 other industries considered together, in 1893 and 1894. The proportional amount of business done was computed by considering the maximum production—that is to say, the greatest amount of goods that can be turned out with the present facilities—as representing 100 per cent.

AVERAGE PROPORTION OF BUSINESS DONE AND AVERAGE DAYS IN OPERATION IN 75 INDUSTRIES, 1893 AND 1894.

Industries.	Number of establishments.	Average proportion of business done.		Average days in operation.	
		1893.	1894.	1893.	1894.
Boots and shoes	638	59.19	59.76	275.99	279.16
Carpetings	11	69.27	61.55	247.53	259.15
Cotton goods	148	85.97	79.58	281.87	273.08
Leather	141	61.60	63.34	280.09	291.59
Machines and machinery	322	60.12	53.84	287.42	283.30
Metals and metallic goods	327	59.96	56.93	267.91	266.91
Paper and paper goods	98	74.72	61.65	278.37	273.21
Woolen goods	115	75.43	73.81	265.01	262.70
Worsted goods	21	77.05	75.33	278.53	270.90
Other industries (66)	2,272	59.49	57.29	280.27	278.53
Total	4,093	61.49	59.06	278.40	275.63

In the 4,093 establishments making returns in each year, the proportion of business done in 1893 is represented by 61.49 per cent, and in 1894 by 59.06 per cent. Fifteen industries reported a larger proportion of business done in 1894.

The average number of days in operation during 1893 was, for all

industries, 278.40, and during 1894, 275.63, a decrease of 2.77 days, or 0.99 per cent. Thirty-six of the 75 industries considered show an increase in the average number of days in operation in 1894 as compared with 1893.

The actual product per $1,000 of capital invested in each of the 9 leading industries of the State, with the average product per employee, the percentages of industry product paid in wages, and the percentages devoted to other expenses, is shown in the following statement for 1894.

By industry product is meant the actual result of the productive forces in the industry; that is, the added value created above the value of stock and materials consumed. This product was obtained by deducting from the total value of goods made and work done the value of stock used. In the division of the proceeds of each industry, one part of the industry product is paid to the labor force in the form of wages. The balance constitutes a fund from which are paid freights, insurance, interest on loans and stock, rents, commissions, salaries, etc., in fact, all expenses other than those for stock and wages. The remainder, if any, is the profit of the employer.

INDUSTRY PRODUCT, WAGES, AND PROFIT AND EXPENSES IN NINE SPECIFIED INDUSTRIES, 1894.

Industries.	Industry product.	Wages.	Profit and expense fund.	Industry product.		Per cent of industry product.	
				Per $1,000 of capital.	Average per employee.	Paid in wages.	Devoted to profit and expenses.
Boots and shoes	$33,943,486	$20,082,006	$13,861,480	$1,299.23	$830.67	59.16	40.84
Carpetings	2,139,131	1,329,350	809,781	293.95	571.35	62.14	37.86
Cotton goods	33,091,913	21,863,643	11,228,270	290.25	484.97	66.07	33.93
Leather	4,566,155	2,722,360	1,843,795	547.22	797.16	59.62	40.38
Machines and machinery	13,809,413	7,276,856	6,532,557	454.05	1,016.82	52.69	47.31
Metals and metallic goods	10,177,044	6,591,555	3,585,489	525.47	865.84	64.77	35.23
Paper and paper goods	8,647,720	3,961,597	4,686,123	347.55	894.75	45.81	54.19
Woolen goods	9,265,047	4,887,984	4,377,063	384.53	649.68	52.76	47.24
Worsted goods	4,759,832	2,903,940	1,855,892	312.62	516.14	61.01	38.99

The following comparative statement shows the value of goods made and work done as reported by 857 identical establishments in each year from 1885 to 1894, inclusive:

VALUE OF GOODS MADE AND WORK DONE, 1885 TO 1894.

Year.	Value.	Increase.	
		Amount.	Per cent.
1885	$209,500,026	.....	.....
1886	239,261,482	$29,761,456	14.21
1887	253,590,055	14,328,573	5.99
1888	261,009,722	7,419,667	2.93
1889	270,018,630	9,008,908	3.45
1890	280,482,516	10,463,886	3.88
1891	284,042,915	3,560,399	1.27
1892	296,563,113	12,520,198	4.41
1893	271,222,640	a 25,340,473	a 8.54
1894	239,816,588	a 31,406,052	a 11.58

a Decrease.

ving comparative statement a similar showi
ical establishments reporting in each of the
94, inclusive:

LUE OF GOODS MADE AND WORK DONE, 1890 TO 1894.

Year.	Value.	In
		Amoun
.....	$508,142,367	.....
.....	517,274,796	$9,132,
.....	547,924,725	30,649,
.....	504,017,695	a 43,907,
.....	449,675,930	a 54,341,

a Decrease.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

eport of the Royal Commission on the Liquor Traffic in Canada. vi, 1,003 pp.

The object of this commission, which was authorized March 14, 1892, as to obtain the fullest and most reliable data possible respecting "the fect of the liquor traffic upon all interests affected by it in Canada; e measures which have been adopted in this and other countries with view to lessen, regulate, or prohibit the traffic; the results of these easures in each case; the effect that the enactment of a prohibitory quor law in Canada would have in respect of social conditions, agri-ultural business, industrial and commercial interests, of the revenue, quirements of municipalities, provinces, and of the Dominion, and so as to its capability of efficient enforcement; all other information earing upon the question of prohibition."

The report proper comprises one volume of 1,003 pages. Numerous itnesses were examined by the commission in the provinces of Ontario, Ianitoba, the Northwest Territories, British Columbia, and in the Jnited States. The evidence is contained in five volumes, having a otal of 5,617 pages.

The interests affected by the liquor traffic in Canada are so varied, umerous, and extensive, and the data available so limited, that the ommission was unable to do more than refer to the most prominent of hese interests and to supply such information in regard to them as they ere able to procure.

During the five years from 1889 to 1893 there were manufactured in e Dominion, on an average each year, 4,538,000 gallons of whisky nd 17,150,000 gallons of beer and ale. Estimating the value of the hisky at 60 cents and of the beer and ale at 30 cents per gallon, and the cattle feed and refuse products sold at $800,000, the total value the annual product of the establishments manufacturing spirits and er would be $8,667,800.

To illustrate further the extent of the interests affected by the indus-y, an estimate is presented of the values of the products of other dustries, such as cooperage, fuel, certain farm crops, transportation, c., affected by the traffic. The estimates of the various amounts paid

annually by the distilleries and breweries in the Dominion are summarized as follows:

Raw materials, the products of the farm	$2,382,765
Wages	1,194,046
Fuel	170,000
Transportation	450,000
Casks, bottles, cases, etc	206,455
Capsules, corks, etc	76,186
Printing, advertising, show cards, etc	79,897
Repairs, blacksmiths' work, etc	47,005
Insurance	151,685
Taxes, gas, water supplies, etc	123,118
Ice	36,757
Sundries	121,992
Total	5,039,906

There was paid annually $1,038,671 for imported materials, leaving $4,001,235 as the sum paid for Canadian products, wages, etc.

There are, based on an average for five years, 2,001,318 gallons of spirits, malt liquors, and wines imported annually into the Dominion, which are valued at $1,736,897.

Taking an average of the total amount of spirits, wine, and malt liquors entered for consumption for the five years ending with June, 1893, it was found to be 21,676,749 gallons per annum. The average population for the same period was 4,834,876, making the per capita consumption 4.48 gallons. The valuation of the annual consumption was placed at $15,030,064. Taking an average of the quantities of wine, spirits, and malt liquors entered for consumption in the five years ending 1893, but excluding cider and native wines, and taking an average of the retail prices, the calculation shows the sum of $39,879,854 to be paid for liquor by the consumers.

The total annual Government revenue derived from the traffic, based on the reports for five years, is given at $7,101,557.22.

How much of the crime, poverty, and insanity of the country is to be attributed to the use of intoxicating liquors could not be accurately determined.

The average number of convictions per year to each 1,000 of population for different offenses is shown in the following statement:

CONVICTIONS PER 1,000 OF POPULATION, 1881 TO 1893.

Periods.	For drunkenness.	For offenses against liquor laws.	Total.	All convictions.
Five years ending 1885	2.49	0.42	2.91	7.14
Five years ending 1890	2.72	.69	3.41	7.87
Three years ending 1893	2.46	.48	2.94	7.40

In summarizing, it is stated that the statistics show—

1. An increase in the number of insane.

2. A decrease in the number of commitments to the common jails, and of those remaining therein.

3. A decrease in the number of population in the reformatories of Ontario and Quebec.

4. A decrease in the number of those arrested for offenses in the principal cities and towns, more particularly in those arrested for drunkenness.

5. An increase in the number of convictions for offenses of all kinds, comparing the five years ended 1890 with the five years ended 1885, but a decrease in the convictions per 1,000 of the population in the three years ended 1893 as compared with those for the five years ended 1890, and a steady reduction in the yearly ratios from 1889 to 1893.

The returns for the earlier years for which the statistics are given are supposed to be less accurate than those for the later ones.

6. Taking the statistics of convictions for drunkenness for the whole Dominion, it will be found that the average for the five years ended 1885 was 2.49 per 1,000 of the population. In the five years ended 1890, during the greater portion of which the Scott act(*a*) was in force in a large number of counties in Ontario, the average was 2.72 per 1,000 of the population. In the three years ended 1893, the average per 1,000 fell to 2.46. The highest ratios were in the years 1889 and 1890. These were the years immediately following the abandonment of the Scott act throughout the counties in Ontario. In them the ratio was 2.94, and from that point there was a gradual reduction until, in 1893, the ratio reached 2.35 per 1,000.

7. The statistics of the committals to, and those remaining in, the penitentiaries of the Dominion show a large decrease in the period between 1880 and 1893.

It was found impracticable to make a summarization of the legislation affecting the liquor traffic or of the results of such legislation. The elaborate detail presentation concerning this, as well as the other features of the inquiry, should be consulted to obtain a correct idea of the subjects discussed.

Annual Report of the Bureau of Industries for the Province of Ontario, 1894. C. C. James, Secretary. Published by Ontario Department of Agriculture. xvi, 339 pp.

This report is for the year 1894, and presents statistics on the following subjects: Weather and the crops, 58 pages; live stock, the dairy, and the apiary, 42 pages; values, rents, and farm wages, 39 pages; loan and investment companies, 28 pages; chattel mortgages, 4 pages; municipal statistics, 174 pages.

WEATHER AND THE CROPS.—Tables giving temperature, sunshine, and precipitation, as observed at various well-distributed points throughout the province, furnish an interesting exhibit of weather conditions for the years 1893 and 1894, also the average for thirteen years (1882 to 1894) for temperature and precipitation, and for twelve years (1883 to 1894) for sunshine.

There were 23,038,974 acres of land assessed in the rural area of the province during 1894, of which 12,292,610 acres were cleared, there remaining 7,859,714 acres in woodland and 2,886,650 acres in swamp,

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a The *Canadian temperance law of 1878,* based on the principle of local option.

marsh, or waste land. There were 2,703,241 acres in pasture during the year and 8,215,153 in crops. The average number of acres per year sown in crops during the period from 1882 to 1894, inclusive, was 7,655,848. The acreage and yield of the principal crops is shown in the following statement:

ACREAGE AND YIELD OF FARM PRODUCTS, 1894.

Products.	Acres.	Yield in bushels.	
		Total.	Average per acre.
Fall wheat	778,992	16,512,106	21.2
Spring wheat	230,016	3,367,854	14.6
Barley	486,261	10,980,404	22.6
Oats	2,330,706	69,867,716	30.0
Rye	90,144	1,386,606	15.4
Pease	785,007	14,022,888	17.9
Corn, for husking	267,348	16,275,352	60.9
Corn, for silo and fodder	111,361	a 1,049,764	a 9.43
Buckwheat	145,268	2,534,335	17.4
Beans	59,281	827,514	14.0
Potatoes	167,253	17,163,130	102.6
Mangel-wurzels	27,670	11,532,127	416.8
Carrots	11,186	3,716,140	332.2
Turnips	147,657	61,694,487	417.8
Hay and clover	2,576,943	a 3,575,200	a 1.39

a Tons.

LIVE STOCK, THE DAIRY, AND THE APIARY.—Some of the totals for the statistics of 1894, given under this title, are shown in the following summarized statement:

Horses, number	674,777
Hogs, number	1,142,133
Horned cattle, number	2,099,301
Sheep, number	2,015,805
Wool clip:	
Number of fleeces	1,092,467
Pounds of wool	6,235,036
Pounds of wool per fleece	5.71
Poultry, number of fowls	7,552,662
Cheese factories:	
Number reporting	1,011
Milk used, pounds	1,027,577,831
Cheese made, pounds	97,284,547
Gross value of cheese	$9,441,247
Creameries:	
Number reporting	39
Butter made, pounds	1,072,517
Value of butter	$224,605
Apiary outfit:	
Hives of bees, number	200,094
Value of outfit	$1,051,574

VALUES, RENTS, AND FARM WAGES.—The total values of farm property for 1894 are summarized in the following statement:

Farm land	$587,246,117
Buildings	204,071,566
Implements	51,530,172
Live stock on hand	111,547,652
Total	$954,395,507

The total value of live stock sold during the year amounted to $31,935,589. Based upon market prices, the total value of crops for the year aggregated $94,055,392.

The average value of a rented farm, including buildings, in 1894 was $5,297; the average rental $238, or 4.49 per cent of the value of land and buildings. The area of a rented farm averaged 127 acres, with 90 acres cleared.

The average annual wages for farm laborers in 1894 is given at $156 with board, and $247 without board. The average monthly wages for the working season are reported at $16.55 with, and $25.61 without board. Domestic servants on farms average $6.23 per month.

LOAN AND INVESTMENT COMPANIES.—The following statement gives totals for the loan and investment companies of the province as reported for the years 1893 and 1894:

LOAN AND INVESTMENT COMPANIES, 1893 AND 1894.

Items.	1893.	1894.
Number of companies	86	89
Capital subscribed	$88,582,985	$94,047,711
Liabilities to stockholders	49,285,824	50,582,921
Liabilities to the public	84,916,664	86,958,820
Total liabilities	134,202,488	137,541,741
Secured loan assets	118,040,915	120,229,818
Property assets	16,161,573	17,311,923
Total assets	134,202,488	137,541,741

CHATTEL MORTGAGES.—During the year ending December 31, 1894, there were 21,759 chattel mortgages, representing $11,220,205, on record in the province and undischarged. Of this number 11,687, representing $3,446,884, were against farmers. In 1893 the chattel mortgages numbered 19,722 and represented $9,333,385, of which 10,684, representing $3,059,857, were against farmers.

MUNICIPAL STATISTICS.—The details presented for the municipal statistics of the province for the year 1893 are summarized in the following statement:

Population	1,910,059
Total assessed valuation	$825,530,052.00
Taxes imposed for all purposes	12,522,660.00
Rate per head	6.56
Mills on the dollar	15.17
Bonded debt	48,083,243.00
Rate per head	a 28.17
Floating debt	6,796,422.00
Interest paid on loans and debentures	2,508,691.00

a Figures here apparently should be $25.17; those given are, however, according to the original.

Die Arbeitseinstellungen im Gewerbebetriebe im Jahre 1893 (Beilage der "Statistischen Monatschrift," 1894). *Die Arbeitseinstellungen im Gewerbebetriebe in Österreich Während des Jahres 1894.* Herausgegeben vom Statistischen Departement im k. k. Handelsministerium. 31, 128 pp.

The Austrian Government has been collecting statistics of strikes each year since 1891. Those for the years 1891 and 1892 were printed by the Government, but not for general distribution. The report for 1893 was published in the form of a supplement to the monthly statistical bulletin, Statistische Monatschrift. The last report, for 1894, is the first that appeared in the form of a special report of the bureau of statistics of the Imperial Ministry of Commerce.

The statistics for 1891 and 1892 appeared in Bulletin No. 1 of the Department of Labor, in an article on strikes in Austria. The article was prepared from data obtained from Volume XI of the foreign reports of the British Royal Commission on Labor. The statistics presented in the present article are obtained from the above-mentioned official reports of the Austrian Government.

The strike statistics in these reports do not cover agricultural, forestry, or mining industries. These will be separately treated in a report soon to be published by the Austrian Minister of Agriculture.

The statistics for the two years here presented were collected according to such different methods, that it will be necessary to show the information in separate tables for each year. The report for 1893 embraces but two general tables, one showing strikes according to localities, and the other by industries affected. The essential features of the second are reproduced in the following table:

STRIKES IN 1893, BY INDUSTRIES.

Industries.	Strikes.	Establishments.	Employees.			Cause or object.			Result.		
			Total.	Strikers.	Days lost.	For increase of wages or that and other demands	Against reduction of wages.	All other.	Succeeded	Succeeded partly.	Failed.
Building	10	249	12,405	9,892	209,155	7	.....	3	.....	6	4
Brewing	7	16	1,225	222	3,067	7	.....	.....	1	2	4
Stonecutting	1	135	700	700	52,500	1	.....	.....	.....	1	.....
Dyeing, bleaching, and finishing	7	18	1,291	1,182	19,109	5	.....	2	4	1	2
Board sawing	1	1	44	19	38	1	.....	.....	.....	.....	1
Printing	3	3	48	31	88	.....	.....	3	.....	.....	3
Paper-box making	1	1	85	70	350	1	.....	.....	.....	1	.....
Cement	1	1	30	27	54	.....	.....	1	.....	.....	1
Piano	1	1	55	55	935	1	.....	.....	.....	.....	1
Wood turning	10	37	570	370	10,153	7	.....	3	1	2	7
Ribbon printing	1	1	196	150	1,350	1	.....	.....	.....	1	.....
Gas and water works	1	1	33	33	66	1	.....	.....	.....	.....	1
Glass and ceramics	9	229	3,617	2,051	32,580	2	6	1	.....	2	7
Rubber goods	2	2	1,053	243	3,288	2	.....	.....	.....	2	.....
Hats	3	3	574	248	534	.....	2	1	1	.....	2
Cartographing and lithographing	1	1	39	22	396	.....	.....	1	.....	.....	1

STRIKES IN 1893, BY INDUSTRIES—Concluded.

ustries.	Strikes.	Establishments.	Employees.			Cause or object.			Result.		
			Total.	Strikers.	Days lost.	For increase of wages or that and other demands	Against reduction of wages.	All other.	Succeeded	Succeeded partly.	Failed.
andling...	1	1	1,000	1,000	12,000	1	.....	.....	.....	1	.....
er.....	14	48	1,963	1,790	50,634	12	1	1	1	10	3
nery.....	8	8	2,175	222	1,040	2	.....	6	1	1	6
.....	18	56	1,685	1,299	14,493	6	2	10	6	5	7
al oil and refining, candle ing	1	1	232	190	1,520	1	.....	.....	.....	1	.....
milling....	2	9	88	78	1,452	.....	.....	2	.....	1	1
ruling....	1	1	29	8	16	.....	.....	1	.....	.....	1
ng works.	1	1	20	20	40	1	.....	.....	1	.....	.....
ing.....	3	256	502	489	2,415	3	.....	.....	.....	3	.....
aking.....	4	4	681	526	1,778	4	.....	.....	2	.....	2
uric acid fertilizing ks.....	1	1	83	40	40	1	.....	.....	.....	.....	1
es.....	43	43	14,128	6,423	90,771	22	8	13	12	9	22
ture and netmaking goods.....	11	36	546	523	6,577	9	.....	2	2	3	6
	1	1	81	42	672	1	.....	.....	.....	1	.....
and tiles.	2	2	156	6	10	1	1	.....	1	.....	1
ng and rating	1	36	100	50	400	.....	.....	1	.....	1	.....
washing..	1	4	105	99	990	1	.....	.....	.....	1	.....
Total.....	172	1,207	45,539	28,120	518,511	101	20	51	33	55	84

e report for 1894 goes more into details concerning strikes, with exception, however, that industries are given in more comprehen- groups. The tables embrace information concerning each strike, separate recapitulations according to localities and industries, the ber and character of strikes according to the months in which they n, the results of strikes according to their duration, and the results auses. The information contained in these tables is also much more fully analyzed in the text preceding them than in the report for . The two following tables give the same information as that for , though somewhat more in detail, concerning strikes in 1894:

STRIKES IN 1894, BY INDUSTRIES.

Industries.	Strikes.	Establishments.	Total employees.	Strikers.	Strikers reemployed.	New employees after strikes.
glass, china, and earthen ware. .	22	130	7,717	6,415	6,235	104
and metallic goods	23	38	4,606	2,752	2,522	165
nery and instruments	7	7	579	194	103	45
n and caoutchouc goods.....	23	1,593	12,818	9,793	9,579	104
r, hides, brushes, and feathers...	9	19	765	641	421	107
es	34	46	10,467	6,317	5,624	529
hanging.....	1	145	422	194	194	.....
ng apparel and millinery	9	22	837	668	511	114
.....	1	1	25	24	23	.....
reparations	7	97	1,021	299	283	14
cal works.....	2	2	1,612	1,268	468	932
ng trades.....	11	358	18,921	14,975	14,397	34
ng and publishing	5	5	152	85	60	24
, heat, and light station	1	1	168	104	.....	100
ortation	2	2	509	249	50	118
industries	2	2	99	97	97	.....
Total	159	2,468	60,718	44,075	40,567	2,390

ION AND RESULTS OF STRIKES IN 1894, BY INDUSTRIES.

	Duration of strikes.					Results of strikes				
	10 days and under.	11 to 20 days.	21 to 30 days.	31 to 40 days.	Over 40 days.	Succeeded.		Succeeded partly.		N b
						Number.	Per cent.	Number.	Per cent.	
d ...	17	2	1	.....	2	6	27.27	10	45.46	
ic ...	15	3	1	3	1	6	26.09	6	26.09	
i- ...	4	3	.....	.....	.....	.....	.....	.....	.....	
t- ...	16	3	1	1	2	8	34.78	6	26.09	
es, ...	5	2	.....	.....	2	3	33.33	1	11.11	
...	25	6	1	.....	2	2	5.88	10	29.41	
...	.....	1	.....	.....	.....	.....	.....	1	100.00	..
d ...	6	1	.....	1	1	4	44.45	3	33.33	
...	1	.....	.....	.....	.....	.....	.....	.....	.....	
...	7	.....	.....	.....	.....	2	28.57	2	28.57	
...	2	.....	.....	.....	.....	.....	.....	.....	.....	
...	9	1	1	.....	.....	4	36.36	2	18.18	
h- ...	3	2	.....	.....	.....	3	60.00	.....	.....	
al ...	1	.....	.....	.....	.....	.....	.....	.....	.....	
...	2	.....	.....	.....	.....	.....	.....	1	50.00	
...	2	.....	.....	.....	.....	1	50.00	1	50.00	..
...	115	24	5	5	10	39	24.53	43	27.04	

CAUSES OF STRIKES IN 1894, BY INDUSTRIES.

Against reduction of wages.	For increase of wages.	For regular payments	For reduction of	For discharge of foremen,	Against discharge of employees	For reinstatement of discharged em-	Against obnoxious rules.	For Labor Day, May 1.	C ca

An analysis of these tables shows that a very large proportion of all the strikes occurred in the groups of building trades, wooden and caoutchouc goods, stone, glass, china, and earthen ware, and textiles. The exact extent to which each group figures is shown in the following statement of percentages:

Industries.	Per cent of strikes.	Per cent of days lost.
Building trades	33.98	23.14
Wooden and caoutchouc goods	22.21	49.85
Stone, glass, china, and earthen ware	14.55	5.48
Textiles	14.33	8.05
Other industries	14.93	13.48

The duration of strikes was, in general, very short. Out of a total of 159 strikes, 115 lasted less than 11 days. The longest strike lasted 136 days, while the average duration was 11.68 days.

In giving the causes of strikes, the Austrian bureau has adopted a peculiar method of presentation. As strikes may, and usually do, result from a variety of causes, it has been thought preferable to use the cause instead of the strike as the unit. The table, therefore, shows the number of times that each cause figured as the incentive to a strike. Thus there is shown a total of 318 causes for 159 strikes.

It will be seen that the demands for an increase of wages and for a reduction of hours are by far the most frequent causes of strikes. Of the total of 318 causes, 88, or 27.67 per cent, were due to the former, and 43, or 13.52 per cent, to the latter cause.

The bureau has, however, also made a calculation of the causes of strikes according to the more usual method of using the strike as the unit. Such a presentation, together with the percentage of strikes due to each cause, is given in the following statement:

PER CENT OF STRIKES DUE TO EACH SPECIFIED CAUSE, 1894.

Cause.	Strikes.	
	Number.	Per cent.
Against reduction of wages	11	6.92
Against reduction of wages in connection with various other demands	7	4.40
For increase of wages	21	13.21
For increase of wages and reduction of hours	9	5.66
For increase of wages and reduction of hours in connection with other demands	24	15.09
For increase of wages in connection with other demands, but not including reduction of hours	34	21.38
For regular payments	2	1.26
For regular payments in connection with other demands	1	0.63
For reduction of hours	3	1.89
For reduction of hours in connection with other demands, but not including increase of wages	7	4.40
For discharge of foremen or superintendents	6	3.77
For discharge of foremen or superintendents in connection with other demands not specified above	3	1.89
For reinstatement of discharged employees	13	8.18
For reinstatement of discharged employees in connection with other demands not specified above	5	3.14
For Labor Day, May 1	1	0.63
Other demands	12	7.55
Total	159	100.00

It is thus seen that 21, or 13.21 per cent of all strikes, were due to the single demand for higher wages; 33, or 20.75 per cent, to demands for higher wages and shorter hours alone and in connection with other demands, and 34, or 21.38 per cent, to demands for higher wages in connection with other demands, not including reduction of hours.

Regarding the results of strikes, the first table for 1894 shows that 39, or 24.53 per cent of all strikes, were successful; 43, or 27.04 per cent were partly successful, and 77, or 48.43 per cent, were failures.

The most important information, however, that can be obtained concerning the results of strikes is that where they are shown according to the causes for which strikes were undertaken. It is possible to obtain this for the first time for the year 1894. This is done in the following table:

RESULTS OF STRIKES, BY CAUSES, 1894.

Cause.	Succeeded.			Succeeded partly.			Failed.			Total.		
	Strikes.	Establishments	Strikers.	Strikes.	Establishments	Strikers.	Strikes.	Establishments	Strikers.	Strikes.	Establishments	Strikers.
Against reduction of wages	10	25	1,525	.....	.....	.....	8	9	430	18	34	1,955
For increase of wages	20	74	3,122	31	314	7,510	37	1,684	12,779	88	2,072	23,411
For regular payments	3	3	162	.....	.....	.....	.....	.....	.....	3	3	162
For reduction of hours	15	41	1,788	3	210	467	25	2,013	26,674	43	2,264	28,929
For discharge of foremen, etc.	2	2	98	.....	.....	.....	14	14	1,062	16	16	1,160
Against discharge of employees	6	6	479	.....	.....	.....	17	18	1,851	23	24	2,330
For reinstatement of discharged employees	3	3	154	1	1	63	24	24	3,184	28	28	3,401
Against obnoxious rules	1	9	295	.....	.....	.....	.....	.....	.....	1	9	295
For Labor Day, May 1	6	10	4,498	1	11	488	17	1,732	10,690	24	1,753	15,676
Other causes	29	40	7,089	8	83	1,554	37	1,943	25,434	74	2,066	a34,221
Total (b)	95	213	19,210	44	619	10,082	179	7,437	82,104	318	8,269	111,540 (a)

a These figures do not represent the totals as shown by the other columns; they are, however, given as reported.

b A considerable number of strikes were due to two or three causes, and the facts in such cases have been tabulated under each cause. Hence the totals for this table necessarily do not agree with those for some of the preceding tables.

As already explained, the systems of presentations of results for 1893 and 1894 differ so materially that a comparison of one year with another is difficult. However, from figures for the four years given in the last report, a reasonably accurate idea may be gained of the cause of strikes in Austria during that period, namely, 1891 to 1894, inclusive.

The following statement shows the number of strikes, strikers, establishments, etc., for each year:

STRIKES BY YEARS, 1891 TO 1894.

Items.	1891.	1892.	1893.	1894.
Strikes	104	101	172	159
Establishments affected	1,917	1,519	1,207	2,468
Employees in establishments	40,486	24,621	45,539	60,718
Strikers	14,025	14,123	28,120	44,075
Percentage of strikers of total employees	34.64	57.36	61.75	72.59
Total days lost	247,086	150,992	518,511	566,463

The above figures are significant. They show a decided and almost steady increase from year to year in the number of strikers, the percentage of employees striking, and the number of working days lost. Comparing the figures for 1891 and 1894, it is found that in every case they are greater for the last year than for the first year.

The last table, prepared from material contained in the reports, shows the number and percentage of strikes according to the principal causes and their results:

PER CENT OF STRIKES, BY CAUSES AND RESULTS, 1891 TO 1894.

Causes and results.	1891.		1892.		1893.		1894.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
CAUSES.								
For increase of wages	26	25.00	19	18.81	38	22.09	21	13.21
Against reduction of wages	16	15.39	19	18.81	20	11.63	11	6.92
For increase of wages in connection with reduction of hours and other demands	28	26.92	32	31.69	63	36.63	67	42.13
Reduction of hours alone, or in connection with other demands except increase of wages	7	6.73	9	8.91	5	2.91	10	6.29
For and against discharge of employees	7	6.73	15	14.85	21	12.21	19	11.95
Other causes	20	19.23	7	6.93	25	14.53	31	19.50
RESULTS.								
Succeeded	19	18.63	26	25.74	33	19.18	39	24.53
Succeeded partly	29	28.43	29	28.71	55	31.98	43	27.04
Failed	54	52.94	46	45.55	84	48.84	77	48.43
Total strikes	a 104	100.00	101	100.00	172	100.00	159	100.00

a For two strikes results are not reported, hence they are omitted under "Strikes by results."

The above table shows that the percentage of strikes resulting from demands in reference to wages alone has decreased materially during the four-year period, while that of strikes resulting from demands for increase of wages in connection with reduction of hours and other demands has steadily increased. At the same time, the percentage of successful strikes has increased, while there was a corresponding decrease in the number of failures.

Fourth Annual Report of the Department of Labor of New Zealand. Hon. W. P. Reeves, Minister of Labor. 67 pp.

This report, which is for the year ending March 31, 1895, treats of the condition of the labor market; assistance rendered by the department in procuring employment; the establishment of labor colonies on State farms; the effect of certain features of the factory inspection and shops and shop-assistant's acts of 1894; labor disturbances; methods of dealing with the unemployed; reports of factory inspectors and wages and employees in various industries.

During the year the department assisted 2,007 married and 1,023 single men in finding employment. The total number of men assisted in this manner since the organization of the department is as follows:

MEN ASSISTED IN PROCURING EMPLOYMENT.

Year.	Number.	Persons dependent on them.
June 1, 1891, to March 31, 1892	2,593	4,739
April 1, 1892, to March 31, 1893	3,874	7,802
April 1, 1893, to March 31, 1894	3,371	8,002
April 1, 1894, to March 31, 1895	3,030	8,833
Total	12,868	29,416

Of the men assisted during the year ending March 31, 1895, there were 894 sent to private employment and 2,136 to Government works. The nonemployment of 3,004 of the number was due to slackness of trade and similar causes, while sickness was given as the reason for 26 cases. Of the persons dependent on those assisted, 2,007 were wives, 330 parents and others, and 6,546 children.

The provision of the factory inspection law of New Zealand, which makes it compulsory that the written permit of the inspector be conspicuously fastened to the wall of the room in which overtime is being worked, is proving a great safeguard. The requirement of the same law that all goods given out as piecework to be done in a private dwelling, or in any place not registered as a factory, shall have attached to it a printed label describing the place where the work was done and stating that it is an unregistered workshop, which label shall not be removed before the goods are finally sold, has had good effect in preventing owners of factories giving out material to be made up by people whose dwellings are unfit to be used as workshops for the manufacture of clothing. It has probably not prevented poor women from obtaining work, because where any two persons (such as mother and daughter, or two friends) choose to work together they can register as a factory, and their workshop be under proper inspection.

The number of persons working under the factories act was 29,879, of whom 22,324 were men and 7,555 women. This was an increase of 4,028 over the year ending March 31, 1894, the difference being mainly

caused by the wider grasp of the new act in including as factories all places where two persons work at a handicraft. The prior act made three persons the minimum for factory employment.

Histoire Économique de la Propriété, des Salaires, des Denrées et de Tous les Prix en Général, depuis l'An 1200 jusqu'en l'An 1800. Par le Vicomte G. d'Avenel. 2 vols.: xxvii, 726, 916 pp.

This work was at first undertaken as a purely private enterprise by the Vicomte d'Avenel. After awarding to it the Rossi prize in 1890 and in 1892, the Academy of Moral and Political Sciences, unable to publish it on account of its size, earnestly recommended that the Comité des Travaux Historiques, au Ministère de l'Instruction Publique, issue the work in the collection of Documents Inédits sur l'Histoire de France. Accepted by the latter, it therefore now appears as a public document.

The nature of the work is essentially documentary. In general the author may be said to have undertaken much the same work as that done for Great Britain by Mr. Thorold Rogers in his History of Agriculture and Prices in Great Britain. Of the 1,669 pages embraced within the two volumes, 521 pages only are devoted to introductory remarks and critical analysis, the remaining 1,148 pages consisting of quotations of prices, rents, etc. Of these latter pages all but 33 consist of a mere enumeration of particular quotations of prices, values, and rents. Each quotation shows the source whence derived, the locality, the date, the measure of the period, the quantity expressed in the measure now in use, the price expressed in the old measure quoted and the corresponding price expressed in the modern measure, and finally, the price in francs per unit of the measure in use at the present time. All the quotations concerning each article are given in one place, according to their dates, thus affording for each article a series of quotations in chronological order covering the entire period from 1201 to 1800. These general tables relate to (1) the value of different kinds of agricultural lands, (2) the value of houses at Paris and elsewhere in France, (3) the revenues derived from land, (4) the rents of houses, and (5) the prices of ordinary farm products and of bread.

In the concluding 33 pages the attempt is made to calculate the average value and revenue-producing power of land at different periods and the course of average prices of the more important cereals, both for particular provinces of France and for the whole country generally. The tables showing the average price of wheat for each year for which quotations could be obtained during the period 1201 to 1800, the same for rye, barley, and oats during the period 1601 to 1800, and for all four grains by periods 1201 to 1800, are of such general importance as to warrant their reproduction. As regards the single article of wheat, the second volume contains a chart prepared by M. Levasseur,

based on material contained in the present as well as other publications, showing graphically the course of prices during these six centuries.

AVERAGE PRICE PER BUSHEL OF WHEAT IN FRANCE, 1201 TO 1800.

Year.	Price.	Year.	Price.	Year.	Price.	Year.	Price.	Year.	Price.
1201	$0.203	1326	$0.493	1409	$0.294	1488	$0.228	1566	$1.087
1202	.322	1327	.489	1410	.393	1489	.171	1567	.971
1203	.162	1328	.507	1411	.274	1490	.335	1568	.974
1211	.231	1329	.459	1412	.137	1491	.214	1569	.946
1220	.277	1331	.360	1413	.192	1492	.182	1570	.771
1222	.324	1332	.452	1414	.207	1494	.159	1571	.914
1224	.171	1333	.584	1415	.270	1495	.171	1572	1.090
1226	.524	1334	.371	1416	.358	1496	.173	1573	2.009
1228	.303	1335	.127	1417	.176	1497	.236	1574	1.508
1229	.174	1337	.326	1418	.442	1498	.202	1575	.982
1233	.204	1338	.154	1419	1.422	1499	.336	1576	1.031
1237	.595	1339	.407	1420	1.032	1500	.202	1577	.736
1238	.317	1340	.325	1421	.883	1501	.339	1578	.749
1239	.473	1341	.535	1422	1.035	1502	.268	1579	.849
1241	.171	1342	.224	1423	.737	1503	.127	1580	1.673
1247	.441	1343	.569	1424	.282	1504	.211	1581	.771
1249	.372	1344	.608	1425	.457	1505	.312	1582	1.002
1250	.743	1345	.292	1426	.443	1506	.117	1583	1.007
1251	.218	1346	.748	1427	.460	1507	.158	1584	1.109
1253	.394	1347	.540	1428	1.311	1508	.262	1585	1.112
1255	.280	1348	.758	1429	.609	1509	.197	1586	2.227
1256	.583	1349	.565	1430	.707	1510	.093	1587	2.688
1258	.398	1350	2.049	1431	.509	1511	.155	1588	1.396
1259	.318	1351	1.133	1432	.745	1512	.150	1589	.936
1260	.205	1353	.318	1433	.694	1513	.188	1590	1.651
1261	.554	1354	.619	1434	.476	1514	.250	1591	2.380
1263	.224	1355	.330	1435	.243	1515	.468	1592	2.312
1264	.148	1356	.511	1436	.274	1516	.311	1593	1.783
1265	.373	1357	.212	1437	.579	1517	.322	1594	1.209
1268	.112	1358	.958	1438	1.133	1518	.594	1595	3.177
1269	.596	1359	.915	1439	.851	1519	.201	1596	2.985
1271	.628	1360	.529	1440	.361	1520	.237	1597	1.849
1272	.602	1361	1.059	1441	.265	1521	.587	1598	1.554
1273	.136	1362	.326	1442	.437	1522	.461	1599	.872
1276	.152	1363	.900	1443	.468	1523	1.326	1600	.568
1277	.182	1364	.628	1444	.238	1524	.624	1601	.741
1278	.197	1365	.516	1445	.208	1525	.398	1602	.828
1281	.333	1366	.644	1446	.190	1526	.207	1603	1.013
1282	.531	1367	.488	1447	.205	1527	.528	1604	.950
1284	.080	1368	.318	1448	.119	1528	.580	1605	1.084
1285	.762	1369	.867	1449	.214	1529	.777	1606	1.024
1287	.240	1370	.660	1450	.186	1530	.549	1607	.853
1288	.169	1371	1.450	1451	.179	1531	1.606	1608	1.455
1289	.250	1372	.310	1452	.112	1532	.756	1609	.890
1290	.484	1373	.536	1453	.120	1533	.418	1610	1.033
1291	.642	1374	1.048	1454	.236	1534	.335	1611	.934
1293	.662	1375	.345	1455	.616	1535	.531	1612	.979
1294	.516	1376	.316	1457	.335	1536	.420	1613	.788
1295	.645	1378	.374	1458	.280	1537	.424	1614	.986
1296	.380	1379	.224	1459	.226	1538	.298	1615	.759
1297	.302	1380	.192	1460	.172	1539	.618	1616	1.035
1298	.484	1381	.162	1461	.542	1540	.360	1617	.921
1299	.884	1382	.272	1462	.183	1541	.414	1618	1.172
1300	1.020	1384	.258	1463	.148	1542	.375	1619	.697
1301	.350	1385	.340	1464	.125	1543	.517	1620	.829
1302	.380	1386	.227	1465	.154	1544	.671	1621	.704
1303	.373	1387	.169	1466	.245	1545	.483	1622	1.242
1304	1.192	1388	.214	1467	.144	1546	.461	1623	1.366
1305	.466	1389	.364	1468	.127	1547	.315	1624	1.691
1307	.569	1390	.380	1469	.144	1548	.394	1625	.931
1309	.367	1391	.441	1470	.087	1549	.551	1626	1.649
1310	.216	1392	.478	1471	.141	1550	.390	1627	1.032
1311	.687	1393	.596	1472	.095	1551	.823	1628	1.107
1312	.571	1394	.498	1473	.154	1552	.456	1629	.970
1313	1.711	1395	.150	1474	.226	1553	.457	1630	1.353
1314	.363	1396	.336	1475	.134	1554	.509	1631	2.322
1315	.840	1397	.289	1476	.277	1555	.482	1632	1.703
1316	1.472	1398	.309	1477	.252	1556	.824	1633	1.479
1317	.388	1399	.340	1478	.280	1557	.550	1634	.868
1318	.534	1400	.171	1479	.092	1558	.507	1635	1.453
1319	.547	1401	.320	1480	.463	1559	.558	1636	1.898
1320	.612	1402	.224	1481	.375	1560	.679	1637	1.887
1321	.381	1403	.316	1482	.539	1561	.608	1638	1.109
1322	.779	1404	.185	1484	.291	1562	.947	1639	1.529
1323	.408	1405	.414	1485	.208	1563	1.408	1640	.808
1324	.728	1406	.284	1486	.405	1564	.534	1641	1.225
1325	.306	1408	.196	1487	.240	1565	1.017	1642	1.143

VERAGE PRICE PER BUSHEL OF WHEAT IN FRANCE, 1201 TO 1800—Concluded.

ar.	Price.	Year.	Price.	Year.	Price.	Year.	Price.	Year.	Price.
.....	$1.645	1674	$0.730	1705	$0.513	1735	$0.469	1768	$1.033
.....	1.466	1675	1.268	1706	.465	1736	.549	1769	1.190
.....	.933	1676	.877	1707	.450	1737	.881	1770	1.105
.....	.741	1677	.607	1708	.669	1738	.736	1771	1.166
.....	1.189	1678	1.175	1709	2.198	1739	.954	1772	1.173
.....	1.039	1679	.973	1710	1.800	1740	1.109	1773	1.017
.....	1.570	1680	.928	1711	.833	1741	1.148	1774	.881
.....	1.598	1681	1.161	1712	1.298	1742	.745	1775	.964
.....	2.223	1682	.789	1713	1.460	1743	.529	1776	.789
.....	1.777	1683	.643	1714	1.660	1744	.565	1777	.871
.....	1.264	1684	.811	1715	.654	1745	.471	1778	.865
.....	.821	1685	1.058	1716	.670	1746	.548	1779	.921
.....	.816	1686	.541	1717	.561	1747	.827	1780	.762
.....	771	1687	.709	1718	.610	1748	.640	1781	.914
.....	.780	1688	.420	1719	.760	1750	.834	1782	.958
.....	.835	1689	.669	1720	.999	1751	.885	1783	.922
.....	1.506	1690	.611	1721	.548	1752	.860	1784	1.290
.....	1.919	1691	.823	1722	.736	1753	.801	1785	1.020
.....	1.847	1692	.913	1723	1.027	1754	.573	1786	.866
.....	1.977	1693	1.713	1724	1.181	1755	.549	1787	.769
.....	1.056	1694	2.590	1725	1.398	1756	.830	1788	.827
.....	1.074	1695	.671	1726	.926	1757	.724	1789	1.362
.....	1.004	1696	.784	1727	.619	1758	.993	1790	1.159
.....	.947	1697	.739	1728	.523	1760	.846	1791	.861
.....	.881	1698	1.370	1729	.635	1761	.602	1793	2.112
.....	.576	1699	1.805	1730	.533	1762	.743	1794	.633
.....	.888	1700	.990	1731	.718	1763	.709	1795	1.067
.....	.550	1701	1.694	1732	.635	1765	.648	1796	1.051
.....	.888	1702	.719	1733	.415	1766	1.036	1798	.886
.....	.780	1703	.835	1734	.619	1767	.877	1800	1.041
.....	.745	1704	.722						

RAGE PRICE PER BUSHEL OF RYE, BARLEY, AND OATS IN FRANCE, 1601 TO 1800.

Year.	Prices.			Year.	Prices.		
	Rye.	Barley.	Oats.		Rye.	Barley.	Oats.
.....	$0.586	$0.463	$0.363	1655	$0.316	$0.161	$0.211
.....	.650	.....	.....	1656	.488	.....	.563
.....	.696	.....	.462	1657	.527	.....	.240
.....	.521	.....	.....	1659	.....	.....	.235
.....	.406	.236	.163	1660	.540	.422	.311
.....	.422	.292	.260	1661	.781	.....	.....
.....	.988	.209	.....	1662	.887	.....	.380
.....	.461	.311	.256	1663	.456	.....	.248
.....	.952	.....	.181	1664	.657	.....	.241
.....	.....	.581	.313	1665	.414	.311	.350
.....	.883	.....	.294	1668	.....	.....	.426
.....	.633	.214	.198	1670	.313	.250	.172
.....	.718	.....	.220	1673	.664	.541	.....
.....	.830	.....	.305	1675	.449	.316	.210
.....	.533	.....	.257	1676	.761	.527	.303
.....	1.049	.835	.482	1677	.184	.....	.126
.....	1.088	.....	.476	1678	.....	.....	.201
.....	.939	.....	.....	1680	.300	.320	.237
.....	.716	.....	.254	1685	.511	.428	.241
.....	.879	.410	.276	1688	.354	.....	.231
.....	1.739	.....	.555	1690	.269	.171	.285
.....	.718	.....	.....	1691	.460	.....	.....
.....	.888	.....	.363	1692	.....	.....	.378
.....	.....	.....	.245	1694	2.547	.....	.....
.....	.568	.360	.397	1695	.507	.327	.205
.....	.684	.....	.481	1697	.258	.....	.151
.....	.....	.....	.340	1698	.....	1.094	.340
.....	.571	.....	.341	1700	.685	.499	.283
.....	.319	.213	.163	1701	.575	.386	.281
.....	.752	.752	.441	1702	.362	.....	.199
.....	1.226	1.226	.397	1704	.....	.....	.182
.....	.....	.....	.501	1705	.353	.212	.141
.....	.822	.822	.428	1706	.162	.....	.150
.....	.....	.....	.112	1708	.260	.....	.263
.....	.....	.....	.372	1709	1.349	1.881	1.628
.....	1.083	.898	.452	1710	1.093	.614	.305
.....	.432	.299	.250	1711	.744	.....	.....
.....	.....	.....	.557	1713	1.338	.....	.483
.....	.....	.316	.561	1715	.413	.278	.233
.....	.....	.....	.189	1716	.373	.....	.....

AVERAGE PRICE PER BUSHEL OF RYE, BARLEY, AND OATS IN FRANCE, 1601 TO 1800—Concluded.

Year.	Prices.			Year.	Prices.		
	Rye.	Barley.	Oats.		Rye.	Barley.	Oats.
1719	$0.437	.....	$0.127	1766	$0.841	$0.612	$0.223
1720	.489	$0.456	.299	1767	.499	.435	.226
1725	.862	.573	.286	1768	.....	.543	.262
1726	.424	.348	.194	1769	.655	.526	.234
1727	.....	.....	.165	1770	1.007	.624	.349
1730	.294	.292	.248	1771	1.017	.735	.245
1735	.220	.178	.162	1772	.....	.519	.418
1736	.....	.....	.145	1773	.731	.550	.251
1738	.848	.....	.....	1774	.628	.425	.225
1739	.518	.452	.192	1775	.796	.256	.201
1740	.622	.343	.258	1776	.624	.486	.321
1741	.....	.475	.256	1777	.535	.482	.284
1745	.236	.168	.165	1778	.705	.572	.231
1746	.....	.....	.152	1779	.781	.439	.161
1747	.575	.517	.340	1780	.552	.476	.332
1748	.379	.....	.359	1781	.826	.494	.338
1750	.441	.258	.193	1782	.881	.548	.284
1751	.538	.412	.257	1783	.632	.506	.246
1752	.765	.680	.700	1784	.717	.614	.442
1755	.349	.305	.189	1785	.898	.620	.396
1756	.843	.....	.....	1786	.690	.591	.349
1758	1.058	.....	.204	1787	.618	.429	.365
1760	.689	.309	260	1788	.642	.420	.273
1761	.353	.340	.129	1789	.921	.620	.387
1762	.581	.449	.195	1790	.815	.555	.439
1763	.371	.367	.187	1795	.742	.630	.979
1764	.784	.286	.137	1800	.639	.505	.398
1765	.469	.303	.210				

AVERAGE PRICE PER BUSHEL OF WHEAT, RYE, BARLEY, AND OATS IN FRANCE, 1201 TO 1800, BY PERIODS.

Period.	Prices.				Period.	Prices.			
	Wheat.	Rye.	Barley.	Oats.		Wheat.	Rye.	Barley.	Oats.
1201-1225	$0.258	$0.129	$0.088	$0.104	1526-1550	$0.476	$0.272	$0.252	$0.163
1226-1250	.280	.256	.109	.092	1551-1575	.816	.612	.408	.289
1251-1275	.394	.340	.131	.087	1576-1600	1.360	1.068	.595	.422
1276-1300	.436	.417	.237	.090	1601-1625	.969	.680	.313	.255
1301-1325	.589	.408	.272	.156	1626-1650	1.292	.884	.612	.367
1326-1350	.456	.340	.272	.204	1651-1675	1.088	.585	.388	.306
1351-1375	.612	.340	.224	.181	1676-1700	.918	.612	.442	.238
1376-1400	.317	.190	.136	.136	1701-1725	1.007	.612	.592	.272
1401-1425	.490	.238	.204	.129	1726-1750	.748	.456	.326	.204
1426-1450	.456	.313	.214	.160	1751-1775	.901	.714	.499	.299
1451-1475	.221	.156	.105	.071	1776-1800	1.020	.714	.517	.469
1476-1500	.272	.204	.110	.136	1890	1.360	.816	.680	.612
1501-1525	.272	.224	.194	.109					

Conseil Supérieur du Travail, Ministère de l'Agriculture, de l'Industrie et des Travaux Publics. 1re Session, 1892: Application des Articles 4, 6, et 7 de la Loi du 13 décembre, 1889. 2e Session, 1893, 1894, 1895. 1re Partie: Minimum de Salaire. 2e Partie: Durée du Travail dans les Briqueteries. 3e Partie: Règlements d'Ateliers. 4e Partie: Statistiques du Travail.

By royal order of April 7, 1892, the King of Belgium created, under the Department of Agriculture, Industry, and Public Works, a superior council of labor, to consist of 16 representatives of the employers of labor, 16 representatives of the laborers themselves, and 16 members selected on account of their special familiarity with industrial and *social* questions, or 48 members in all. The duties of this council were

specified to be: To give advice on all propositions relative to labor legislation; to investigate and report upon questions concerning labor conditions, such as apprenticeship, industrial education, factory rules, hygiene, and security of workingmen in factories and workshops; the organization of insurance against accidents; or, in a word, all matters concerning the relations between labor and capital, and, finally, to report upon the best means for the organization of a statistical service for the methodical collection of information concerning labor.

In pursuance of these instructions the council up to the present time has issued five reports, as enumerated above.

The first of these represents an investigation concerning the modifications that should be introduced in articles 4, 6, and 7 of the law of December 13, 1889, regulating the hours of labor and conditions of employment of men, women, and children in industrial establishments. The councils of industry and labor, created by the law of August 16, 1887, in all of the more important industrial centers of Belgium, were first called upon for a report on this question; and on the basis of the information thus obtained the superior council of labor prepared various propositions embodying the recommendations upon which its members were agreed. The reports of the different councils of industry and labor and the report of the deliberations and recommendations of the superior council make up the contents of the volume. No attempt is made to present the information gathered in a statistical form.

The second report presents a discussion had by the superior council of labor concerning a proposition making it obligatory upon the Government to insert in all contracts for public works a provision requiring the contractors to pay to their employees wages not inferior to a minimum amount as determined by the Government; in other words, to fix a minimum wage for all workingmen engaged on work for the Government. This proposition was finally rejected, expression being given at the same time to the opinion that the Government ought to encourage the payment of just wages. The fixing of minimum wages was declared to be the province of labor organizations, and it was highly desirable that labor should be better organized and therefore in a position to look after its own rights without the intervention of the State.

The third report relates to a consideration of the regulation of the employment of children in brick and tile works.

In the fourth report is given the results of an investigation of the question as to how far the State ought to intervene in the way of regulating the character of shop rules, the imposition of fines for their infraction, etc. A schedule of inquiries covering this subject was first addressed to all the councils of industry and labor, the answers to which served as a basis for the discussions by the council. The council incorporated their conclusions in the proposed law, the nature of which was to designate the points that ought to be covered by a set of shop rules, to provide means for their publicity, methods of enforcement, etc.

The fifth report of the council is devoted to a consideration of the

Commerce, de l'Industrie, des Postes et des Télé
Directeur de l'Office du Travail. 659 pp.

In this work the French labor bureau has made a compendium of the laws and decrees of France including the United States, which relate to the hy general conditions of labor of workingmen in indust There is not included, however, such special legisl the conduct of particularly dangerous industries, as requiring the use of poisons, as lead, copper, sulphu compounds, the regulation of steam engines, or the ing, transportation, the manufacture of explosives concerning these subjects will form the subject-matt report.

The present work consists of two distinct parts. is given an analysis and general study of the legisl try relating to the conditions under which industr on in order to show the successive stages through tion has passed. Here the legislation of each count the following heads:

1. General sanitary regulations.
2. The regulation of dangerous and unhealthy i constituting a nuisance.
3. The employment of women and children.
4. The employment of adults.
5. The sanitation and security of workshops.
6. The responsibility of employers for accidents

the laws, reference is made to the compilation of labor laws issued by the United States Department of Labor, and two tables are introduced showing the regulations of each State concerning the employment of women and children, the inspection of factories, etc.

In general, all laws enacted prior to January 1, 1895, are included. Two detailed indexes are provided. The first, or analytical index, furnishes a list of the laws and decrees of each country according to the methodical order adopted in the analysis, with reference to the pages where they are analyzed. The second, or chronological index, gives a list of the laws and decrees of each country according to the order of the date of their enactment, with reference to the pages where they are reproduced.

The bureau announces its intention to continue the work here begun by the publication of periodical bulletins reproducing new legislation as it is enacted.

Les Syndicats Ouvriers aux États-Unis. Par M. Isidore Finance. Extrait du Rapport des Délégués Ouvriers, Exposition Internationale de Chicago, 1893. Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. 214 pp.

This volume is a portion of the official report of a delegation of workingmen who visited America on the occasion of the World's Fair at Chicago in 1893, under the auspices of the French Government, to study the conditions of labor in the United States. It is devoted entirely to a history and description of those labor organizations in the United States which are of a national character. Two brief chapters are given, the one concerning the general history of the attempts of workingmen to form organizations, and the other on the general labor legislation of the United States, especially as it relates to the right of association. Each individual national labor organization is then taken up in turn in a separate chapter, and an account given of its organization, its principles, the dates and places of its annual conventions, and other important facts in its history. The histories of 57 organizations, commencing with those of the Knights of Labor and of the American Federation of Labor, are given in this way. Two concluding chapters give a description of the principles and work of building trades' councils, a sample workingman's budget (that of an employee of the building trades of New York City earning $3.50 per day), and brief comments on some general features of the condition of organized labor in the United States.

The work appears to be based on original sources. It should be said that M. Finance, the author, is the chief of the division in the Office du Travail which relates particularly to labor legislation and labor organizations.

of the operation of the systems of insurance in t
The prior volumes of this series are:

1. Statistique des Accidents du Travail, d'après
sur l'assurance obligatoire en Allemagne et en Aut

2. Résultats Financiers de l'Assurance Obligato
dents du Travail en Allemagne et en Autriche, 189

3. Résultats Statistiques de l'Assurance Obligatoi
en Allemagne, 1893. 134 pp.

4. Résultats Statistiques de l'Assurance Obligatoi
en Autriche, 1893. 147 pp.

These reports are not special studies, but are ra
and analyses of the provisions of the laws relating
workingmen, and the methodical presentation of th
tems as given in the annual official reports of the
bureau of each country.(*a*)

The object of this report is to continue the work
present the results obtained since the last year co
prior reports. In the entire series there is, theref
an analysis of the various laws of Germany and A
the compulsory insurance of workingmen, but statis
tions since the inauguration of the system down to
which official data were obtainable.

Congrès International des Accidents du Travail et des

1. Comptes-Rendus et Rapports du 1er Congrès à

2. Comptes-Rendus et Rapports du 2e Congrès à

3. Comptes-Rendus et Rapports du 3e Congrès à

1889. Of these that in relation to accidents to labor and social insurance has been productive of by far the most important results. Two succeeding congresses have been held, the one at Berne in 1891, and the other at Milan in 1894. In addition to the published reports of these meetings, the permanent committee of the congress has published a quarterly bulletin since 1890. In these eleven volumes, representing the work of the congress up to the present time, is presented the most valuable body of literature relating to the question of accidents to labor and the insurance of workingmen against sickness, accidents, and old age that exists in any language.

Bulletin de la Société Française des Habitations à Bon Marché. M. Fleury-Ravarin, Secrétaire Général. 1890–1895, 6 vols.

The Société Française des Habitations à Bon Marché was founded at Paris December 17, 1889, as the direct result of the Congrès International des Habitations à Bon Marché held in connection with the International Exposition of Paris of that year. Its object is to encourage the construction by individuals, manufacturers, or local societies, of sanitary and cheap houses for workingmen, or the improvement of existing houses. It seeks especially to diffuse information concerning the best means for enabling workingmen to become the owners of their own homes.

To do this its mode of action is to place at the disposition of individuals or societies, plans, models of constitutions, forms of official papers, contracts of loan, sale, etc., and to act as a technical consulting commission whose advice, when sought, will be given gratuitously concerning any plans for the organization of societies or for the provision of workingmen's houses. All direct work by it in the way of making loans, the purchase of ground, or the erection of houses is formally prohibited by its constitution.

Its most important work is, therefore, the publication of a bulletin which has appeared regularly four times a year since 1890. The greater portion of the contents of this bulletin is given up to detailed descriptions of the operations of societies or individuals for the provision of workingmen's houses. These accounts embrace not only a general description of the extent of the work, but statements in detail of the cost of erection of the buildings, accompanied by elaborate architectural plans, copies of the constitutions of the societies, or the conditions under which they are occupied or can be acquired, and analyses of the financial results obtained. In this way the society not only presents information concerning what has been accomplished in the past, but reproduces plans, models of constitutions, etc., which may serve as an encouragement and guide to others wishing to undertake operations in the same field.

its technical library of works relati
and gives accounts of the operations of industria
profit sharing is practiced.

Bulletin de l'Institut International de Statistique. T
son. Luigi Bodio, Secrétaire Général. cx

This first part of Volume VIII of the publicati
tional Statistical Institute is entirely devoted to a
ceedings, including the reproduction of the papers
session of the International Statistical Institute, hel
tember 11–15, 1893. The list of papers or memoirs h
follows:

1. Comparability of trade statistics of various co
Bateman.

2. Rapport fait au nom du comité pour la statisti
tion maritime [Report of the committee on statistics
gation], by A. N. Kiaer.

3. Results of recent investigations on prices in t
by Prof. F. W. Taussig.

4. The character and volume of the money of t
1878–1893, by Maurice L. Muhleman.

5. Currency reform in Austria-Hungary, by Dr. Ju

6. The national bank currency, by Charles A. Con

7. Rapport fait au nom du comité des prix [Report
on prices], by John B. Martin and R. H. Inglis Palgr

8. Rapport fait au nom du comité de la propriété f
the committee on real estate], by P. G. Craigie

number and time of trains to be run for the accommodation of the public, by M. Riebenack.

13. Railway freight traffic statistics, by C. P. Leland.

14. The course of wages in the United States since 1840, by Carroll D. Wright.

15. Bericht über die Fortschritte der Statistik in Oesterreich seit 1891 [Report on the progress of statistics in Austria since 1891], by Dr. Franz von Juraschek.

16. Ueber die Berechnung eines internationalen Sterblichkeitsmasses (Mortalitäts-Index) [Concerning the calculation of an international death rate (index of mortality)], by Joseph Körösi.

17. Die internationale Classificierung der Berufsarten [An international classification of occupations], by Joseph Körösi.

18. Liste des diagrammes et cartogrammes sur la femme en France, exposés à Chicago dans le "Woman Building," à la "World Fair" [List of diagrams and charts relating to woman in France, exhibited at Chicago in the Women's Building of the World's Fair], by Victor Turquan.

19. Census classifications of occupations in the United States, by Davis R. Dewey.

20. Statistical data for the study of the assimilation of races and nationalities in the United States, by Richmond Mayo-Smith.

21. The geographical distribution of the population of the United States, by Henry Gannett.

22. The condition and mode of statistics of marriage and divorce, by Samuel W. Dike.

23. Nomenclature des professions: Rapport sur les observations faites par différents directeurs de services statistiques, à propos du projet de nomenclature des professions présenté à leur examen par l'Institut International de Statistique (session de Vienne, 1891) [Nomenclature of occupations: Report on the observations made by different directors of statistical bureaus in regard to the proposition for a nomenclature of occupations presented to them for examination by the International Statistical Institute, Vienna meeting, 1891], by Dr. Jacques Bertillon.

24. Projet de nomenclature des professions [Proposed nomenclature of occupations], by Dr. Jacques Bertillon.

25. A preliminary report on anthropometry in the United States, by Edward Mussey Hartwell.

26. Remarks on the theory of anthropometry, by Franz Boas.

27. On the application to individual school children of the means derived from anthropological measurements by the generalizing method, by W. Townsend Porter.

28. Anthropometric statistics of Amherst College, by Edward Hitchcock.

29. An anthropometrical study of the effects of gymnastic training on American women, by Claës J. Enebuske.

Bulletin de l'Institut International de Statistiqu
raison. Luigi Bodio, Secrétaire Général. viii,

This bulletin contains the following contributio

1. Die Lebenskosten belgischer Arbeiter-Famil
Ermittelt aus Familien-Haushaltrechnungen und
mengestellt [The cost of living of Belgian work
former times and at the present day: Based on ac
expenses kept by workingmen's families, with si
bined], by Dr. Ernst Engel.

2. Bulletin bibliographique—Annonces des pubb
[List of publications relating to statistics].

3. Nécrologies—Friedrich von Hardeck, Henry

The contribution of Dr. Engel constitutes the i
of a proposed comprehensive study of the cost of li
in each of the principal countries of Europe and in
The part here published contains, therefore, not
consideration and analysis of the question in Belg
introduction giving a general statement of the metl
the history and literature of all previous attempts t
information concerning the cost of living of workin

Album de Statistique Graphique de 1894. Ministère
lics. xv pp., 21 charts.

This is the fifteenth issue of an annual album p
by the minister of public works, showing by mea

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, will be continued in successive issues, dealing with the decisions as they occur. All material parts of the decisions are reproduced in the words of the courts, indicated, when short, by quotation marks, and when long, by being printed solid. In order to save space immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

CONSTITUTIONALITY OF MECHANIC'S LIEN LAW.—The constitutionality of the mechanic's lien law of Indiana was called in question, and its validity was sustained by the supreme court of the State, November 19, 1895, in the case of Smith et al. *v.* Newbauer et al., reported in volume 42 of the Northeastern Reporter, page 40.

An action was brought by John A. Newbauer and others against Henry B. Smith and others for the foreclosure of a mechanic's lien. From a judgment in favor of the plaintiffs by the circuit court of Blackford County, the defendants appealed to the supreme court, basing the appeal on the ground, among others, that the circuit court erred in overruling their demurrer to the complaint. In passing upon the validity of the statute Chief Justice Howard, delivering the opinion of the court, said:

In support of the demurrer to the complaint it is first contended that the mechanic's lien law of this State is invalid, as repugnant to section 1, article 14, of the Constitution of the United States, which provides that no State shall deprive any person of life, liberty, or property without due process of law. This contention is based upon the provisions of section 3 of the mechanic's lien law (sec. 7257, Rev. Stat., 1894; sec. 1690, Elliott's Supp.), which provides that any person wishing to acquire such a lien upon any property shall file in the recorder's office, "at any time within sixty days after performing such labor or furnishing such materials," notice of his intention to hold such lien. This notice—the only one provided for in the statute—is insufficient, say counsel, to secure that due process of law referred to by the Federal Constitution before the fixing of a lien upon the citizen's property. Under the law as enacted, counsel contend, anyone may perform labor or furnish material in the construction of a building for a landowner, without such owner's knowledge or consent, and then secure a lien upon the land and building by notice filed after the work is done or materials furnished. It is said that the property owner should have notice at or before the doing of the work or the supplying of the materials, so that he may, if he wishes, prevent the doing of such work or the furnishing of such materials, and so keep his property free of the lien.

It has often been held that every statute under which a contract is made enters into and forms a part of such contract. The appellants, in the contract for the erection of the dwelling house upon their property, are therefore chargeable with knowledge of, and are bound by, all the provisions of our mechanic's lien law then in force. By the terms of the agreement entered into, the contractors were to furnish all materials necessary for the construction of the building. This was notice that such materials were to be furnished; and the law under which the contract was made was further notice that the building and ground upon which it was to be erected would be liable to a lien for the value of the materials so furnished. The only uncertainty left was whether those who should furnish the material would claim the lien therefor. That uncertainty is provided for in the statute, which requires that the notice of intention to hold the lien be filed in the recorder's office within sixty days. The owner has, consequently, ample means of protection and is not liable to a lien without notice, nor to have his property taken without due process of law.

It is intimated that the law hampers the freedom of action of the property owner; that he may desire to pay the contractor in advance, or to pay him by an exchange of other property for the erection of the buildings; and that it may be an inconvenience, or induce the contractor to bid higher for the work, if payment is to be delayed for sixty days after the work is done. These, however, are considerations that should be addressed to the legislature and not to the courts. Besides, it is to be remembered that without the right to a lien on the property laborers and material men would in many cases have no security for their toil or the materials furnished by them. The laborer is worthy of his hire, and the seller of goods ought to be paid for them. As the law stands, all parties are secured in their rights. The owner, by seeing that laborers and material men are paid, or by keeping back for sixty days from the contractor sufficient to make such payment, is in no danger of having to pay twice for his building; while at the same time the man whose labor or materials have gone into the building can look to the building itself, and to the ground upon which it stands, for his security. The property owner enjoys the benefit of this work and of this material, and it is but just that he should be charged for at least sixty days, with the responsibility of seeing that they are paid for.

CONSTITUTIONALITY OF PROPOSED LAW REGULATING THE PAYMENT OF WAGES.—By resolution of the house of representatives of the legislature (general court) of Massachusetts, the supreme judicial court of that State was required to give its opinion upon the following important question of law: "Is it within the constitutional power of the legislature to extend the application of the present law, relative to the weekly payment of wages by corporations, to private individuals and partnerships, as provided in the bill entitled 'An act relative to the weekly payment of wages,' now pending before the general court?"

The opinion of the court, given in reply to the above question, on May 6, 1895, was to the effect that under part 2, chapter 1, section 1, article 4, of the State constitution, which provides that full power and authority shall be given to the general court to make and ordain all

manner of wholesome and reasonable laws, so as the same be not repugnant or contrary to the constitution, as they shall judge to be for the good of the Commonwealth, the legislature has power to extend the application of the present law, relative to the weekly payment of wages by corporations, to individuals and partnerships, and that such legislation is not in conflict with the declaration of rights (articles 1, 12) nor with the fourteenth amendment to the Constitution of the United States.

In the course of the opinion, which is reported in full in volume 40 of the Northeastern Reporter, page 713, the court said:

Your question implies that in your opinion the present law relating to the weekly payment of wages by certain corporations to their employees is constitutional, and your inquiry is whether it is within the constitutional power of the legislature to extend the law to private individuals and to partnerships.

We are not informed of the nature of the doubts which your request implies. It is well known that in some of the States of this country legislation similar to that proposed has been held unconstitutional by the courts, sometimes on the ground that it is partial in its character, but more frequently on the ground that it interferes with what is called the liberty of contract, which, it is said, either as a privilege or as property, is secured to the inhabitants of a State by its constitution, or by the Constitution of the United States.

The legislative power granted to the general court by the constitution of Massachusetts is perhaps more comprehensive than that found in the constitutions of some of the other States. The constitution of Massachusetts (part 2, chap. 1, sec. 1, art. 4) provides as follows: "And further, full power and authority are hereby given and granted to the said general court, from time to time, to make, ordain, and establish all manner of wholesome and reasonable orders, laws, statutes, and ordinances, directions and instructions, either with penalties or without, so as the same be not repugnant or contrary to this constitution, as they shall judge to be for the good and welfare of this Commonwealth, and for the government and ordering thereof, and of the subjects of the same, and for the necessary support and defense of the government thereof," etc. There is not in the constitution of Massachusetts anything which in terms relates to the freedom or liberty of contract, as there is concerning the liberty of the press. The constitution declares that "all men are born free and equal, and have certain natural, essential, and unalienable rights; among which may be reckoned the right of enjoying and defending their lives and liberties; that of acquiring, possessing, and protecting property; in fine, that of seeking and obtaining their safety and happiness;" and it is also declared that "no subject shall be arrested, imprisoned, despoiled, or deprived of his property, immunities, or privileges, put out of the protection of the law, exiled, or deprived of his life, liberty, or estate, but by the judgment of his peers, or the law of the land." (Declaration of Rights, articles 1, 12.) This last declaration was taken from Magna Charta, and in substance it has been incorporated in the fourteenth amendment of the Constitution of the United States, in form as follows: "No State shall make or enforce any laws which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws."

labor and services have been exempt from attachm
ground that it was thought that workmen general
for their support. Usury laws furnish perhaps th
tration of the regulation by statute of the price to
of a commodity, but the validity of these laws usuall
as an exception to the general rule. Rev. Stat. Ma
"Of the regulation of trade in certain cases," sho
interference by the legislature with what may be ca
trade or of contracts concerning the sale of commod
tion of the subject of fire insurance, and the prohib
oleomargarine made in imitation of yellow butter, a
that an agreement to make a will must be in writin
most recent instances in Massachusetts of the prohib
of contracts by statute. The constitutionality of m
tion has never been questioned, and, when questione
been sustained.

In Frisbie *v.* United States, 15 U. S. Supreme Cou
says: "While it may be conceded that, generally spe
inalienable rights of the citizen, is that of the libert
such liberty is not absolute and universal. It is with
power of the Government to restrain some individuals
as well as all individuals from some contracts. It m
right to contract for the purchase or sale of lotte
minor the right to assume any obligations, except f
of existence; to the common carrier the power to n
releasing himself from negligence; and, indeed, may re
in any employment from any contract in the course of
which is against public policy. The possession of t
ernment in no manner conflicts with the propositi
speaking, every citizen has a right freely to contra
his labor, services, or property."

The decisions of various courts of this country

health or public morals or the public convenience, some of it for the protection of individuals against fraud, and some of it for the protection of classes of individuals against unfair or unconscionable dealing. The considerations which may influence the legislature to determine what legislation of this character is required by good public policy, or in the words of the constitution, what laws are "for the good and welfare of this Commonwealth, and for the government and ordering thereof, and of the subjects of the same," are not for us to weigh, except so far as may be necessary to determine whether the legislation proposed is repugnant or contrary to the constitution. The legislation on similar subjects in Great Britain and in other foreign countries which have no written constitution limiting the powers of the legislature is not in all respects pertinent to the present inquiry; but, considering the history of legislation in England concerning servants or laborers from the earliest times, and the statutes which in modern times have been passed in several foreign countries and many of the States of this country regulating the employment of laborers in factories, we can not say, as matter of law, that the legislation proposed is so plainly not wholesome or reasonable that the general court may not judge it to be for the good and welfare of the Commonwealth. We know of no reason derived from the constitution of the Commonwealth or of the United States why there must be a distinction made in respect to such legislation between corporations and persons engaged in manufacturing, when both do the same kind of business. The existing statutes on the subject, relating to manufacturing corporations, we do not regard as having been passed necessarily in amendment of their charters. They relate to all the corporations described, whether there is any power reserved in the legislature to amend their charters or not, and they do not purport to have been passed for the purpose of restricting the corporate powers of the corporations.

Without attempting to define the limits of the power of the general court in Massachusetts to control the right of its inhabitants to make contracts generally, we can not say that a statute requiring manufacturers to pay the wages of their employees weekly is not one which the general court has the constitutional power to pass, if it deems it expedient to do so. We have not examined in detail the provisions of the bill referred to, nor considered whether the bill may not need amendment to make its meaning clear; but the question submitted, we think, should be answered in the affirmative.

UNLAWFUL PAYMENT OF WAGES.—The Cumberland Glass Manufacturing Company and John F. Perry were convicted before the court of quarter sessions, Cumberland County, N. J., of unlawful payments to employees, in violation of the first section of an act approved March 12, 1880, entitled "An act to secure to workmen the payment of wages in lawful money." (Supplement to the Revision of the Statutes of New Jersey, p. 771.)

The case was carried before the supreme court of the State, which decided, on November 7, 1895, that if a workman agrees with his employer to take pay for his work in part in merchandise, the merchandise so furnished does not constitute a ground of set-off; it is a payment, and goes in diminution of the claim for work; also, that such a

bargain is in violation of the first section of the act above referred to. The court, however, retained the case for future consideration as to the power of the legislature to prevent a workman from contracting as to the character of the compensation to be given him for his work.

The decision of the supreme court, delivered by Chief Justice Beasley, as published in volume 33 of the Atlantic Reporter, page 210, is as follows:

The defendants were convicted before the Cumberland quarter sessions upon an indictment charging them with being engaged in the manufacture of glass, and with unlawfully paying to one John M. Quigg, a workman in the employ of the corporate defendant, the sum of $81.71 in store goods and merchandise, as and for the wages earned by him while in the employ of said corporation. At the trial it was shown that the workman above named, at the time of his engagement, entered into the following agreement, to wit: "Bridgeton, N. J., July 28, 1890. In consideration of the Cumberland Glass Manufacturing Company furnishing me with groceries, merchandise, and money, I hereby agree to work for them at glass blowing for the blast of 1890 and 1891; and, should I fail to do so, I hereby waive any plea in defense of my obtaining goods and money under false pretenses." The work in question was done and the goods furnished under that contract.

The act alleged to have been violated was the statute entitled "An act to secure to workmen the payment of wages in lawful money," passed in 1887. The first section of this law makes it unlawful "for any glass manufacturer, iron master, foundry man, collier, factory man, employer, cranberry grower, or his agent or company, their agents or clerks, to pay the wages of workmen or employees by them employed in either store goods, merchandise, printed, written, verbal orders or due bills of any kind." By the fourth section it is provided as follows, viz: "That any glass manufacturer, iron master, foundry man, collier, factory man, employer or company offending against the provisions of this act, the same shall be a misdemeanor, and punishable by a fine of not less than ten dollars, or more than one hundred dollars for each and every offense, or imprisonment not to exceed the term of thirty days, at the discretion of the court; but nothing in this act shall apply to or affect any private individual giving orders as aforesaid on a store in the business or profits whereof he has no interest, directly or indirectly, or to the offset of any debt due from such workman to any glass manufacturer, iron master, foundry man, collier, factory man, employer or company where the said debt is voluntarily contracted by the employee or to the payment of any debt due from such workman to any glass manufacturer, iron master, foundry man, collier, factory man, employer, or company."

By an act approved March 13, 1888 (P. L., p. 174), the fourth section of the original was amended so as to eliminate from it the proviso or restrictive clause just recited; and it was the validity of this supplement that forms the topic of the discussion in the briefs of counsel. This argument proceeded on the assumption that the primary act conferred upon the defendants the right to set off merchandise that it had furnished to the employee, and that, if that provision was in force, the defendants were guiltless. But the court is of the opinion that this discussion is irrelevant to the case before us. As has appeared, the exceptive clause in section 4 of the original act relates to set-offs of debts due from the employee to the employer. In the present instance the merchandise furnished did not constitute offsets or debts. By force

of the contract between the parties, they were payments, pure and simple. The legal doctrine on this subject is entirely clear. A set-off is a counter demand growing out of an independent transaction for which an action may be maintained by the defendant against the plaintiff. As, therefore, the defense in this case could not be successfully rested on the last clause of section 4 of the original act, it becomes of no importance for present purposes whether that clause has been repealed or not. It would be a pure waste of time for the court to supererogate on that subject.

Before closing this branch of the case it is proper to say that we have found no ground on which the conviction of the defendant Perry can be rested. This man's only connection with the transaction is that he was the bookkeeper and a stockholder of the glass company. On account of such relationship he is not responsible for the violation of the act by the company. It is section 4 that denounces the punishment, and, by its express terms, it is the act of the employer himself, and not the act of his agent, that is made the punishable misdemeanor. With respect to this party the judgment must be reversed.

These results dispose of the case so far as it is exhibited in the briefs of counsel; but there is another problem that must be resolved before the court can finally decide upon the alleged criminality of the defendant. That question is whether the legislature, in enacting the law of 1888, did not exceed its authority. It is obvious that the general effect of this statute is to prevent a workman who is entirely sui juris from stipulating as to the character of the compensation to be given him for his work. The inquiry thus arising is one of great importance, touching, as it does, one of the essential rights of the citizen and the extent of the legislative authority, and therefore should not be settled except upon the fullest consideration. The result is that the case will be retained, so that counsel can send in briefs on the point thus reserved.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—In an action by Charles Mitchell against the Northern Pacific Railroad Company to recover damages for injuries received while in the performance of his duty as an employee of said company, through the negligence of fellow-servants, the United States circuit court, district of Minnesota, fifth division, decided on October 31, 1895, that under section 1, chapter 13, of the laws of 1887 of Minnesota, Mitchell was entitled to recover damages.

The opinion of the court, delivered by Judge Nelson, as published in volume 70 of the Federal Reporter, page 15, is as follows:

By consent of parties, this case was submitted to a referee to report findings of fact and conclusions of law; and, upon confirmation thereof by the court, judgment to be entered accordingly. The referee reported in substance that plaintiff, on the 25th day of February, 1893, was employed as a car cleaner for defendant at Staples, Minn., and while so engaged inside a passenger coach on a side track, another coach was kicked in against it at a dangerous and unusual rate of speed by a switching crew, consisting of a locomotive engineer, fireman, foreman, and helpers; that, by reason thereof, plaintiff was injured, without negligence on his part; and damages were awarded him in the sum of $1,500.

comes within the provisions of the statute of Minn
common-law rule, which reads as follows: "Every
owning or operating a railroad in this State shall
ages sustained by any agent or servant thereof, by
gence of any other agent or servant thereof, w
negligence on his part, when sustained within this

This statute has been construed to apply, not to al
but only to those exposed to and injured by the dan
use and operation of railroads. (Pearson *v.* Ra
N. W., 302; 47 Minn., 9, and cases cited.)

The question, then, is, Does the plaintiff come
has been held that a car repairer or section man inj
fellow-servant in carelessly and negligently runn
a car can recover for such injury, as being exposed
dangers incident to railroading; and I see no reaso
under the circumstances, was not exposed in like m
the plaintiff is within the terms of the Minnesota st
can recover in this action.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES
cle 7, of the constitution of Mississippi, which esta
sibility of railroad corporations for injuries of empl
"knowledge, by any employee injured, of the defec
acter or condition of any machinery, ways, or app
defense to an action for injury caused thereby, exce
or engineers in charge of dangerous or unsafe car
tarily operated by them."

This constitutional provision was construed by t
Mississippi, in the case of Buckner *v.* Richmond an

existing rule that knowledge by an employee of the defective or unsafe character of the machinery or appliances shall not, of itself, bar a recovery. The law was that knowledge by an employee of defective appliances, which he voluntarily used, precluded his recovery for an injury thus received. The constitution destroys that rule, and the mere fact that the employee knew of the defect is not a bar to a recovery; but knowledge by an employee of defects is still an element or factor—and a very important one—in determining whether, with the knowledge he had, he used that degree of caution required in his situation with reference to the appliances causing his injury. The constitution did not have the effect to free employees of railroad companies from the exercise of ordinary caution and prudence. It does not license recklessness or carelessness by them, and give them a claim to compensation for injuries thus suffered. They, like others not employees, must not be guilty of contributory negligence, if they would secure a right of action for injuries. The fact of knowledge of defects shall not, as heretofore, be a defense, but the same rule that applies to others applies to them. They must use the degree of caution applicable to the situation, for the absence of this is negligence, and, if it contributed to the injury, no recovery can be had by an employee, any more than by one not an employee. It was not the purpose of the makers of the constitution to place employees on a more favorable footing as to this than others, but simply to free them from the bar before held to arise from the fact of knowledge of defective conditions. It is not a defense, but it is a fact or circumstance for consideration, among others, in order to determine the presence or absence of contributory negligence, which is yet a defense, as it was before, but is not to be made out against an employee by the mere fact of his knowledge.

THE FELLOW-SERVANT ACT OF TEXAS.—Chapter 24 of the acts of 1891 of Texas, entitled "Fellow-servants," provided, in section 2, "that all persons who are engaged in the common service of such railway corporations and who, while so engaged, are working together at the same time and place to a common purpose, of same grade, neither of such persons being intrusted by such corporations, with any superintendence or control over their fellow-employees, are fellow-servants with each other; provided, that nothing herein contained shall be so construed as to make employees of such corporation, in the service of such corporation, fellow servants with other employees of such corporation, engaged in any other department or service of such corporation. Employees who do not come within the provisions of this section shall not be considered fellow-servants."

The chapter above referred to was repealed by chapter 91 of the acts of 1893, by which the section quoted was practically reenacted and its scope extended so as to include, in addition to the employees of any railway corporation, the employees of the "receiver, manager, or person in control thereof."

The foregoing legislation was considered by the court of civil appeals of Texas, November 6, 1895, in the case of the San Antonio and Aransas

[illegible] of any right he had already acquired: also t
case it was proper for the jury to consider the
the time lost, the necessary money expended for m
physical and mental pain, and for such injuries a
award such a sum as would be a fair compensatio
a car repairer working in a separate yard from
fellow-servant of such hostler nor of the switchme
particularly while on a car under orders to proceed
assist in repairing damages caused by a wreck.

In the course of the opinion affirming the jud
court, delivered by Judge Fly, it is said:

We conclude from the statement of facts that
appellee, who was a healthy man, in full possessio
his body, and was an employee of appellant, recei
$1.75 per day, was injured by reason of a collision c
lant. The collision occurred on account of the fai
properly light its yards, and by the negligence of
were not the fellow-servants of appellee. The i
appellee were permanent, and have totally incap
labor. He has suffered great bodily pain since
inflicted. He was 45 years old when injured, and h
of 24 years.

The right to recover damages accrued under the
repeal of that law by the act of 1893 did not depr
right he had already acquired. Not only had the
the suit was filed before the enactment of the law
act was simply an amplification of the scope of the
evidently no intention on the part of the legislatu
rights acquired under the provisions of the ame
only material difference between the acts of 1891

ries; the necessary sums of money, if any, expended by him for medical attendance and medicines, if any, rendered necessary by his injuries; the physical and mental pain, if any, consequent upon his injuries received; and if you believe from the testimony plaintiff's injuries, if any, are permanent, and will disable him to labor and earn money in the future, you may, in addition to the above, find such sum as will be a fair compensation for his future diminished capacity to labor and earn money." The charge gives the correct measure of damages.

Appellee was not a fellow-servant of either Kinchelow or the switchman. They were not "working together at the same time and place, to a common purpose." While engaged in their ordinary every day labor they were not fellow servants. Kinchelow, who was in charge of the engine when the collision took place, was the "hostler," whose duty it was to receive incoming locomotives, and carry them to the roundhouse, and take outgoing locomotives from the roundhouse and deliver them to the engineers. Appellee was a car repairer, working in a separate yard. The switchman was also in another department of the service, and had no labor in common with appellee. At the time the collision occurred and the injuries were inflicted appellee was on a car, under orders to proceed to Beeville to assist in repairing damages caused by a wreck, and the mere statement of this fact demonstrates that he was not working at that time and place to a common purpose with either the "hostler" or switchman.

DECISIONS UNDER COMMON LAW.

EMPLOYERS' LIABILITY.—In the case of Burke et al. *v.* Anderson, the United States circuit court of appeals, seventh circuit, on October 7, 1895, affirmed the judgment of the United States circuit court for the western district of Wisconsin, by which $4,000 damages were awarded T. Knut Anderson for personal injuries caused by an explosion of dynamite under the following circumstances: Matthew C. Burke was a contractor, engaged in making a roadbed for a railroad, and his codefendant, John Burke, had sole charge of the work for him as general manager and superintendent. The work was carried on by blasting the frozen ground with dynamite and other explosives and afterwards breaking it up with picks, John Burke having personal charge of the blasting. Anderson, a common laborer, unfamiliar with the use of explosives, was hired by John Burke and set to work digging with a pick at a spot where the blasting had been done the day before, without warning or knowledge of possible danger. Anderson was injured by an explosion caused by striking with his pick a piece of dynamite remaining from the blast, which was found to have been negligently conducted.

The court held that, as Matthew C. Burke had created the risk due to the presence of explosives for his own purposes, and was bound not only to exercise the utmost care and every available precaution against possible injury to the workmen, but to give them warning of the risk,

(2) in so carrying on the blasting, or
and powder, that an unexploded portion was left in
in sending the plaintiff into the place where this dan
warning of its existence and without sufficient pr
against injury. The counter proposition, on which
claims exemption from any liability, is substanti
work of blasting and removing any unexploded cl
personal duty of the master, but only the work of
consequently any negligence therein of John Burke w
of fellow-servant, a risk assumed by the plaintif
recovery against the master.

This conflict must be resolved in accordance wit
which is clearly pronounced in the recent decisio
Court of the United States in the case of Mather *v.* I
391). In affirming the judgment, the court, speak
through Mr. Justice Field, states the doctrine applic

"All occupations producing articles or works of ne
convenience may undoubtedly be carried on, and co
familiar with the business, and having sufficient skill
erly be employed upon them; but in such cases, wh
is attended with danger to life, body, or limb, it is
promoters thereof and the employers of others there
sonable and needed precautions to secure safety to th
in their prosecution; and for any negligence in t
which injury follows to the persons engaged, the
employers may be held responsible and mulcted to
injury inflicted. The explosive nature of the mate
case * * * was well known to the employers, an
admonition to them to take every precaution to gua
sions. Occupations, however important, which can
without necessary danger to life, body, or limb, should
at all without all reasonable precautions against such
by science. The necessary danger attending the

which had been employed in blasting. The danger was not inherent in his work; was not one to be anticipated in the labor with pick and spade in a gravel cut for which he was hired; it was not of natural or purely accidental origin, but was produced by the act or requirement of the master in using a dangerous agency to advance his undertaking. Except for the explosive materials carried there for the master's purposes, the plaintiff could have worked safely in the place to which he was assigned. The testimony is undisputed that he had engaged in the work only three days before, had no experience in or knowledge of the use or danger of explosives thus employed, and had no information or suspicion that danger was incurred by digging in this ground. He obeyed the express order of the superintendent to enter and work there, relying, as he had a right to rely, upon the implied assurance of the master that the place was reasonably safe; that there was no other danger there "than such as was obvious and necessary." The master provides the place for his servants to work, and if his acts create special danger, he is not alone chargeable with the positive duty to exercise the utmost care and every available precaution against possible injury to those who are to work there; but if danger impends notwithstanding the precautions taken, he is further obligated to give due information and timely warning to those in his service who are ignorant of its extent before calling upon them to incur the risk.

In respect of the employment of the plaintiff and the directions for his work, it is unquestionable and conceded that the superintendent represented the master as vice-principal. In the same relation he is chargeable with knowledge of the danger in using explosives, and with the duty to protect employees and notify them of risk. If the plaintiff was not informed of the peril which compliance with the order involved, or it was not clearly apparent, the risk thus created can not be held to have been contemplated in the service in which he was engaged, and therefore it was not one assumed by him in his employment. The instructions requested on behalf of the principal defendant, and the theory of the whole defense as well, rest upon the claim that the operation of blasting was common labor, and not the work of a superintendent or vice principal; that its performance by the superintendent was in the character of a fellow-servant, and the master was not liable for any neglect therein beyond the exercise of ordinary care in selecting his servants. In the same connection it is argued that the use and care of the explosives was not a personal duty of the master.

It is sufficient that the risk was created by the master or for his purposes; that there is legitimate finding by the jury of negligence on the part of those engaged in the performance, causing the injury; and, finally, that the plaintiff was ignorant of the risk, and had not assumed it. The doctrine which exempts the master from liability arising out of the negligence of fellow-servants is based upon the assumption by the servant of the ordinary risks of his employment, in which the negligence of fellow-servants is included, but it has no application to risks which are not contemplated by him in entering upon the service, and certainly can not govern for this extraordinary risk interposed by the master without warning.

EMPLOYERS' LIABILITY—MINING COMPANIES.—In the case of Western Coal and Mining Company *v.* Ingraham, the United States circuit court of appeals, eighth circuit, on September 16, 1895, affirmed the judgment of the circuit court of the United States for the western

down by a mule attached to a car used to haul
and thereupon rocks and slate fell from the roof
plaintiff and inflicted the injuries complained of.
have been knocked down or fallen if they had be
first instance, and an inspection of them by a rea
ing boss or inspector would have disclosed the
insufficiently and defectively set, and rendered t
dangerous to work in. The mule which knocked
ungovernable and vicious, and that fact was kno
The plaintiff was in the exercise of due care when
no negligence of his, in any degree, contributed to

The decision in this case is reported in volun
Reporter, page 219. The opinion of the court was
Caldwell, who in the course of it said:

The contention of the defendant is that the defe
of the mine was the result of the negligence of the
and timbered the room, and of the pit or mine bos
persons were the fellow-servants of the plaintiff,
But upon the conceded facts of the case the fellow-
no application to this case. The issue was whethe
discharged his duty to the plaintiff in furnishing
bly safe place in which to work. The mine had
before the plantiff went to work therein, and th
from a defect in that timbering. It is not claime
had anything to do with this timbering, or that it
duty to inspect or repair the same. Whatever ma
miners with reference to timbering the slopes an
from which they remove coal, the rule is well settl
is once opened and timbered, it is the duty of the
use reasonable care and dili

which it must necessarily be performed; and whenever the master, instead of performing this duty in person, delegates it to an officer or servant, then such officer or servant stands in the place of the master, and the negligence of such officer or servant is the negligence of the master; and any servant injured by such negligence may recover from the master for such injury regardless of the relation the injured servant sustained to the officer or servant whose negligence resulted in inflicting the injury.

Upon the facts of the case, therefore, and the issue as it was presented to the jury, the question whether the "pit boss" was a fellow-servant of the plaintiff was wholly immaterial, and the court might well have rejected all evidence and all instructions relating to that question. It was not the negligence of the pit boss, but the negligence of the master in not furnishing a reasonably safe place to work that was complained of. The duty rested on the master to exercise reasonable care and diligence to furnish the plaintiff a reasonably safe place in which to work, and the master is not relieved from responsibility for failing to perform this duty because he saw proper, instead of performing it himself, to intrust its performance to a servant who neglected the duty. The servant's negligence in such cases is the negligence of the master.

Upon the subject of the part the mule played in the accident * * * it would require a great stretch of the rule which the defendant attempts to invoke to say the plaintiff should have anticipated that this mule might at some time be brought to the room in the mine where the plaintiff was at work, and that, while there, the mule would come in contact with the timbers which supported the roof of the mine, and knock them down, because they were insecurely set, and that as a result of all this the roof would fall, and he might be injured, and that, anticipating all this, he ought to have quit the defendant's service. The case does not call for any discussion of what is a primary, proximate, or remote cause. Here all the causes of the accident, whether remote or proximate, were the result of the defendant's negligence, which the plaintiff was not required to anticipate.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—In an action by Hattie Frost against the Oregon Short Line and Utah Northern Railway Company to recover damages for the death of her husband, James W. Frost, who was an engineer in the employ of said company and who was killed in a collision in Montana while in the performance of his duty, the plaintiff recovered a verdict, whereupon the railway company moved for a new trial, basing the motion on the refusal of the court to instruct the jury to bring in a verdict for the defendant on the ground that the company was not liable for the death of Frost, the engineer, as his death was due to the negligence of a fellow-servant, and on the instruction given by the court to the jury to the effect that the employee through whose negligence the collision occurred was the representative of the company, and that his acts and negligence were the acts and negligence of the company.

The motion for a new trial was denied by the United States circuit court, district of Montana, S. D., on September 24, 1895. The circumstances of the case and the decision of the court rendered by

Idaho, finding that train No. 32 was behind time,
graph to the conductor of said train, directed to
of the road called Glenn, to go to Dillon, using th
At the same time he sent an order to Dillon to t
No. 5 to stop at Dillon 2.45 P., for train No.
operator, Stuerer, at Dillon did not give the con
this order, as he was required, and he did not c
the Dillon Station, as required by the rules of t
white, which was displayed, signified that the tr
he displayed red, as he should have done, it would
the train was to stop for orders. In consequence o
the conductor of train No. 5 the order of the trai
his failure to display the signal red, train No. 5 p
Dillon on the regular schedule time, and at a short
said place collided with said train No. 32, and on
sion Engineer Frost received such injuries as caused
that the telegraph operator, Stuerer, received the
train dispatcher at Pocatello, repeated the same
dispatcher, and received the dispatch "O. K.," w
the order received at Dillon was correct. Upon th
court rendered its decision, from which the followi

Under these circumstances there can be no doul
Frost was killed on account of the negligence of s
tor at Dillon.

The point involved in the position taken by th
telegraph operator at Dillon a fellow-servant of
the matter of notice of a change of running tim
which Frost was an engineer performi

at stations, and their speed. This is usually done by the train dispatcher establishing what is termed a "time-table." This is the act certainly of the company. If a time-table is changed temporarily, this must be done by the train dispatcher. He acts in both cases in the name of the superintendent of the company or of its road. A railway company, however, does not perform its whole duty to its employees when it establishes a time-table, either general or temporary. It should exercise reasonable care, under all the circumstances, to bring this time-table to the notice of all persons who are charged by it with the operating of trains on its railway track. The notice of a temporary change in a time-table is as necessary as the notice of the general time-table. There is more danger to be apprehended from the establishment of a temporary time-table when a general one has been in use than from the establishing of a general time-table in the first place.

When the act to be performed is one which it was the duty of the railway company, as master, to execute, can it, in any way, transfer this duty to another, and exonerate itself from liability in case this other person is negligent in its performance? I think, under established Federal authority, it can not.

Under what head of the list of duties required of a master toward his servant shall we place the duty of a railroad company to establish time-tables, and give notice thereof to those engaged in managing and running trains? I apprehend we must class that duty under the head of the obligation of the master to provide a suitable place for his servant to work in. This being the case, the duty of giving notice to those running a train devolves upon the railroad company, and those who undertake or are intrusted with this office personally represent it. A master can not delegate the duty of providing a safe place in which his servant is called upon to work, so as to escape responsibility, if there is a want of proper care in providing such place.

In this case it is admitted that the establishing of a temporary time-table is the work of the railroad company, and the duty of giving notice of any time-table, general or temporary, devolves upon it. How can it be claimed then that in one case more than another this duty of the master can be turned over to a fellow-servant of those who are operating his trains, and be relieved from liability? The duty of giving notice in both classes of time-tables is the duty of the master, and the master can not delegate his duty to another without being responsible for his negligence. Under this rule the telegraph operator Stuerer at Dillon must be considered as representing the company in the duty assigned him of giving notice of the temporary change of the time-table, or in transmitting the notice, intrusted to him to deliver to the conductor of train No. 5, of the change in the time-table. In doing this duty he was not a fellow-servant of those operating the road, but a personal representative of the company, for whose negligence the company was responsible.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—The supreme court of Pennsylvania decided, on October 7, 1895, in the case of Elkins v. Pennsylvania Railroad Company, that a railroad company is responsible for injuries suffered by one of its brakemen, through a defect in the steps of a freight car, while acting as one of a crew sent to a shipper's

was in the yard of, the Atlantic Refining Compa
one of a crew sent into the yard by the defendant
cars there. The superintendent of the refining co
cars should be shifted, and where they should be
the crew were engaged in the work they were sent
tiff received the injury for which he seeks compe
The cause of it has already been stated. If he ha
same cause while transporting the car from one p
defendant company's road, the liability of his em
him for it could not be successfully questioned.
Dooner *v.* Canal Company (164 Pa. Stat., 17; 30
was fully considered in an opinion by our broth
course of it said: "The measure of duty of the rece
turned over to it for transportation by connecting
many cases. It is bound to make such inspection
transportation requires, and if it pass and haul car
tion, or dangerously out of repair, it is answerable
who are thereby injured."

If the defendant company is responsible to its em
dition of the cars it receives for transportation ove
is it not so for the condition of the cars it require
one place to another on the tracks and in the yard
pany? They are as clearly in its service in the
former. Their work is of the same nature in one
and the risks attending it are the same. No suffic
for discriminating between the liability of a railroad
to its employees in handling upon its own line the
poration which are "faulty in construction, or dange
and its liability to them for injuries in handling su
elsewhere. It is not the ownership of the cars, or
they are moved, that imposes the liability upon th
the handling or shifting of them by its orders.

The defendant company was not bound to shift

CONTRACT OF EMPLOYMENT.—In the case of Hermann *v.* Littlefield (reported in volume 42 of the Pacific Reporter, page 443) the supreme court of California decided, on October 9, 1895, that a contract by which an employee agrees to devote his whole time and services to the interest of his employer is not broken by doing a little work for other parties on holidays and at night, such work not resulting in damage to the employer; also, that when a person performing labor at an agreed price and for a stated time continued in the same employment after the expiration of the term without a new agreement, it is presumed that the terms of the original contract were continued, and the original contract is admissible as evidence in a suit by the employee to recover the wages earned since the expiration of the time covered thereby.

The facts in the case are stated in the opinion delivered by Judge Garoutte, which is as follows:

This is an action in assumpsit for work and services performed by plaintiff in assisting defendant in conducting and carrying on the business of an architect. Judgment went for plaintiff, and this appeal is prosecuted from such judgment, and from the order denying the motion for a new trial.

In the year 1887 the parties entered into a written contract, by the terms of which Hermann agreed to give his services "as a draftsman and assistant architect during the necessary and reasonable working hours of each working day, for the term of three years." Hermann also agreed "to devote his whole time and services to the interest of Littlefield's business as a draftsman and assistant architect, to use at all times his utmost reasonable exertion in and for the true and best interests of Littlefield's business, as if he were a partner with him." This agreement expired in due course of time, and plaintiff continued to remain in the employment of the defendant, and performed the same character of services thereafter as before such expiration. By his answer, defendant claimed that plaintiff had made a substantial default in the performance of the terms of the contract upon his part to be performed, and asked for damages. The court, by its finding of fact, declared, in effect, that plaintiff had performed the contract as agreed upon, and further found that during the time of his employment he performed work for persons not clients of defendant, from which employment he had received the compensation of $178; and it thereupon deducted that sum from the amount found due to plaintiff, and ordered judgment for the balance.

It is contended that the court committed an error in admitting the original written contract in evidence. We think there is no weight in the contention. The writing was clearly admissible, as showing the terms of the contract under which plaintiff performed the labor. It is elementary that when a person performing labor at an agreed price and for a stated time continues in the same employment after the expiration of the term, without a new agreement, it is presumed by the law, in the absence of anything to the contrary, that the terms of the original contract are continued; and the fact that the present action is one in the nature of assumpsit in no way deprives the plaintiff of the right to introduce the contract in evidence.

The findings of fact as to the performance of the contract by plaintiff are fully supported by the *evidence*. We see nothing in the record dis-

respect could hardly be de

BULLETIN

OF THE

PARTMENT OF LABOR.

No. 4—MAY, 1896.

ISSUED EVERY OTHER MONTH.

EDITED BY

CARROLL D. WRIGHT,
COMMISSIONER.

OREN W. WEAVER,
CHIEF CLERK.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1896

CONTENTS.

BULLETIN

OF THE

EPARTMENT OF LABOR.

4. WASHINGTON. MAY, 1896.

INDUSTRIAL COMMUNITIES.(a)

BY W. F. WILLOUGHBY.

CHAPTER III.

COAL MINING COMPANY OF BLANZY, FRANCE.

The consideration of the Coal Mining Company of Blanzy will be mewhat briefer than that of Anzin. The company of Anzin, as has en stated, was selected for investigation not because it represented peculiar type of the organization of an industry, but, quite the reverse, cause it was typical of the conditions under which one of the most portant industries is carried on. Its prominence and age, it being far the largest coal mining company of France, and one whose hisy is contemporary with the history of coal mining in that country, re the particular reasons for giving it the preference over other comies. In its consideration, all the conditions influencing the welfare the workingmen have been considered in the greatest possible de-. It will be unnecessary to enter into the same amount of detail in case of the mining center now to be described, for the conditions the latter are quite similar to those existing at Anzin. The chief ue of the consideration of the Blanzy company lies in the opportuy offered for the study of other forms of workingmen's institutions, l in the fact that it supplements the description of Anzin and emphaes the fact that the description there given of conditions and instiions is not that of an exceptional coal mine, but of all of the most portant coal mining companies of France.

In this report an especial interest attaches to the experiences of the mpany of Blanzy. The company at first attempted the system of re patronage, where everything was done directly by the company.

a See footnote to the beginning of this series of articles in Bulletin No. 3.

The far from satisfactory results of its efforts led to a complete change and the adoption of a more liberal system. The testimony of a company of such importance as that of Blanzy on this vital point of the policy to be pursued in the organization of workingmen's institutions is deserving of serious attention. The company describes, in a brochure published by it in 1894, on its workingmen's institutions, the results of its efforts under the two policies pursued. The following is a condensed translation:

From its very foundation the Coal Mining Company of Blanzy has appreciated the peculiar duties that it owes toward its employees. It has always been among those who thought that the duties of an employer toward his employees did not cease with the payment of their wages, but that there were social and moral duties as well that should be regarded. The company, therefore, as early as 1834, commenced the creation of institutions for the welfare of its employees that have since developed until their maintenance requires an expenditure of over 1,000,000 francs ($193,000) annually. These "company institutions," however, while rendering important service, have not given results proportionate to the sacrifices made by the company. Benefits obtained without efforts are rarely appreciated. Favors soon get to be considered as rights, and selfish interests are thought to have dictated their granting. Worse still, the workingman ceases to depend upon himself; he loses the habit of foresight and economy; individual initiative is lost; self-dignity is lessened. These results, which are the consequences of a patronage too highly developed, commenced to be felt a few years ago by the company of Blanzy.

At the same time, by a natural reaction, the spirit of association was awakened among the employees. Cooperative stores, mutual aid and kindred societies developed rapidly throughout the country. The new movement denoted a certain spirit and the presence of aspirations which the company of Blanzy could not afford to disregard. It appreciated the situation, and, while preserving its institutions that had a real raison d'être, resolved to take advantage of the new spirit. It took as its principle that the employer should make use of associations of employees wherever possible. With this system the company is no longer solely responsible for the welfare of its employees. Associations, also, when well directed, contribute powerfully to the maintenance of social peace.

We can not but felicitate ourselves upon the results of our new policy. The interest of the workingmen has exceeded our expectations. Associations are increasing in number and importance, and the day can be anticipated when they will replace all the institutions now controlled by the company, or, at least, so modify them that the workingmen will share with the company in their management.

The coal basin of Blanzy is situated in the central portion of the department of Saône-et-Loire, and next to the coal basin in the north is the most important coal deposit of France. Authority was first given to mine coal here in 1769, under the title of Concession of Montcenis. In 1832 the concession was divided into two parts, named respectively Concession of Blanzy and Concession of Creusot. During these years coal was mined by various companies, among which a constant organization and reorganization was taking place. The present Blanzy

Coal Mining Company was organized in 1831, but has since undergone several modifications. The actual capital of the company is now 15,000,000 francs ($2,895,000), and the property covered by its concessions embraces 21,660 hectares (53,522 acres). Though the company still bears the name of Blanzy, the place where coal was first mined, and from which its concession is named, the real seat of its operations, is at Montceau-les-Mines.

Montceau, though not a company's town in the sense of being specially created by the company, is so entirely dominated by and dependent upon that company that it possesses all the characteristics of a special industrial village. Before the commencement of mining operations Montceau was represented on the maps as a farm. In 1834, when the present company commenced its operations, the commune of Montceau numbered but 315 inhabitants. In 1856 this number had increased to 1,300, in which year it was incorporated as a separate village. In 1861 the number of inhabitants was 3,337; in 1866, 5,548; in 1872, 8,287; and in 1876, 11,010. Its present population, according to the latest official census, is 19,612. In the meantime Montceau has become, chiefly through the efforts of the company, a substantially built town.

The new village had in the beginning no resources, no property, and no municipal buildings. During a good many years the company supplied everything. It rectified and improved the most important roads and constructed bridges and aqueducts. It laid out, most of them on its own land, the streets and squares of the new town. It built and furnished entirely at its own expense several very pretty churches. When there was a question of erecting a town hall, it contributed 60,000 francs ($11,580) to the building fund and donated the ground upon which it was erected. It supported the whole expense of building the new gendarmerie—in the opinion of the state inspectors one of the finest in France—at a cost of between 300,000 ($57,900) and 400,000 francs ($77,200). For a long time it paid the salaries of the officials of the municipal board and provided the necessary buildings for their accommodation. The great efforts made by the company to provide educational facilities to all the inhabitants will be described in another place.

The development of the company itself is best shown by the amount of coal mined from year to year and the total number of its employees. The yearly production, which from 1833 to 1850 had never exceeded 150,000 tons (*a*), reached 300,000 tons in 1860, 400,000 in 1870, 700,000 in 1880, 881,218 in 1887, 1,107,523 in 1892, and 1,105,317 in 1893.

As in the case of the other more important colliery companies of France, the production of coal represents but a part of the activities of the company. Ovens for the manufacture of coke have been installed, factories for the manufacture of bricks of coal dust are operated, and a glass factory is also operated by the company, though its management

a French ton equals 2,204.6 pounds.

company's schools. Strangers are surface workingmen, but very rarely as pitmen been allowed to work below ground. Young women in good health were, until late years, em bers in the operation of sifting and sorting coal. ever, of the improvements made in the methods coal, by which mechanical contrivances are mad manual labor, the number of girls thus employ ished in recent years. Married women, with rare employed by the company. Coal mining affords employment of workingmen of all ages. The f the number of employees of the company Dece according to their ages:

AGE OF EMPLOYEES OF THE COAL MINING COMPANY OF I

Ages.	Employees.			Ages.
	Below ground.	Above ground.	Total.	
13 or under 18 years.	644	734	1,378	48 or under 53 years
18 or under 23 years.	934	364	1,298	53 or under 58 years
23 or under 28 years.	819	447	1,266	58 or under 63 years
28 or under 33 years.	726	403	1,129	63 or under 68 years
33 or under 38 years.	487	297	784	68 years or over ....
38 or under 43 years.	344	188	532	
43 or under 48 years.	238	262	500	Total .....

The hours of labor for workingmen employed b per day, including the time for the descent and re on an average, one hour. Deducting, therefore luncheon, there remains less than eight full h

are called "jobbers," and they hire at their own expense one or two assistant hands. This class of labor, as a rule, is settled for by the month. As regards surface work, employees are paid either by the day or by the job, according to circumstances. As explained in the case of the company of Anzin, only average wages for a series of years can be given. This the following table gives for the years 1872–73 to 1891–92:

AVERAGE DAILY WAGES OF EMPLOYEES OF THE COAL MINING COMPANY OF BLANZY, 1872-73 TO 1891-92.

Year.	Average daily wages of—			Year.	Average daily wages of—		
	Employees at pits, below and above ground.	Other employees.	All employees.		Employees at pits, below and above ground.	Other employees.	All employees.
1872-73	$0.58	$0.57	$0.58	1882-83	$0.72	$0.63	$0.68
1873-74	.59	.60	.60	1883-84	.74	.63	.68
1874-75	.59	.58	.58	1884-85	.72	.63	.68
1875-76	.60	.60	.60	1885-86	.73	.63	.68
1876-77	.61	.62	.61	1886-87	.76	.63	.70
1877-78	.63	.59	.61	1887-88	.78	.64	.71
1878-79	.63	.59	.61	1888-89	.78	.64	.71
1879-80	.65	.60	.62	1889-90	.79	.67	.75
1880-81	.67	.60	.64	1890-91	.80	.69	.77
1881-82	.69	.62	.66	1891-92	.80	.71	.79

WORKINGMEN'S INSTITUTIONS.

The social work undertaken by the company of Blanzy, and by the employees themselves, at Montceau follows along the same general lines as that at Anzin. As at the latter place, the main efforts of the company take the form of the provision of houses and of facilities for workingmen to become house owners, the organization of pension funds, the maintenance of schools, etc.; and those of the employees, the organization of a mutual aid society, in which, however, the company largely participates, and other societies. There are, of course, important points of difference. The policy of the company of Blanzy in encouraging house ownership has been particularly liberal and has met with remarkably successful results. The company, again, has done a very useful work in its efforts to provide employment for miners' wives and daughters, maintaining for that purpose workshops, in connection with its schools, for the making of articles of wearing apparel, and a completely equipped silk-weaving mill for the older women. On the other hand, its system of old-age pensions, whereby the workingmen are not permitted to contribute in any way to the maintenance of the fund, is one that does not so readily commend itself as that practiced at Anzin.

Among institutions organized by the workingmen themselves, the society called La Prudence, which the workingmen have organized for the management of their business affairs, serves a useful purpose, while, on the other hand, the province of distributive cooperation seems to be practically neglected, though the field is apparently one offering every opportunity for its successful introduction.

THE HOUSING OF EMPLOYEES.

The situation of the mines of Blanzy, located, as they are, in a purely agricultural community, of necessity demanded that the first efforts of the company should be directed toward the provision of dwellings for their employees. The work of the Blanzy company in this direction deserves especial attention, both on account of the extent of its operations and because of the liberal policy that it has pursued in regard to house ownership.

M. Simonin, a mining engineer, writing concerning workingmen's institutions at Montceau, after a visit in 1867, says:

The question of lodgings for its employees has almost from the beginning been an object of solicitude to the Blanzy Coal Mining Company. In 1834 it established dwellings for workingmen; but having soon discovered all the drawbacks that the old system of barrack dwellings has as regards tranquillity, hygiene, and morals, especially for miners who relieve each other by turns, it adopted for the future the system of separate houses, each surrounded by a garden. Each house includes two tenements, having each two rooms on the ground floor, a loft and a cellar, and a pigsty attached. In front of the house there is a yard, and at the back a garden, the whole well fenced in. The yard opens on the street, which is broad and well kept. * * * The garden covers an area of from 400 to 500 square meters (4,306 to 5,382 square feet). The workingman raises vegetables for his table and flowers to adorn his home. A garden is absolutely necessary to the coal miner, who is connected by his birthplace and by the nature of his work with the agricultural population. * * * The village looks cheerful; the isolated houses, with their roofs of red tile, produce a picturesque effect.

Since the time that M. Simonin wrote the above important changes, all in the nature of improvements, have been made. The style of cottage described by that author has now been completely abandoned. A new and more graceful model was adopted in 1867. It comprises three, and in some cases four rooms. The gardens have also been enlarged, their average area being now about 700 square meters (7,535 square feet). Instead of grouping the houses all together in one place, they have been erected in separate groups, and in many cases scattered about the country as isolated dwellings, but in close proximity to the mines.

The following table, prepared by the company for this report, shows the condition of affairs in 1894 as regards the direct provision of houses by the company:

NUMBER AND COST OF HOUSES ERECTED FOR EMPLOYEES BY THE COAL MINING COMPANY OF BLANZY, 1894.

Groups of houses.	Dates of erection.	Houses.	Tenements.	Cost.			Annual loss of interest.
				Land.	Construction.	Total.	
Alouettes	1844–1859	99	220	$6,635.22	$68,680.53	$75,315.75	$3,012.64
Magny	1859–1876	96	209	3,164.28	92,923.57	96,087.85	3,843.52
Bel-Air	1859–1876	74	129	6,525.21	70,948.77	77,473.98	3,098.95
Bois-du-Verne	1859–1876	101	220	5,804.78	88,047.82	93,852.60	3,754.10
Other houses		120	386	44,060.04	149,972.35	194,032.39	7,761.29
Total		490	1,164	66,189.53	470,573.04	536,762.57	21,470.50

The picturesque aspect of Montceau, so aptly described by M. Simonin, has, as a matter of course, improved. Well-kept carriage roads run through the workingmen's quarters; trees and plants of all kinds have sprung up, and the green of their foliage makes a pleasant contrast with the red tiled roofs. Here and there a cottage somewhat larger than the rest and inhabited by a boss miner, gang leader or checker, or some other employee of the company breaks the monotony. In the center the schools and a chapel of Romanesque style give to the various groups a pleasing aspect peculiar to the small towns of Burgundy.

No attempt has been made by the company to obtain a commercial return on its investment in lodgings. While an ordinary workingman's house rents for about 12 francs ($2.32) per month in the neighboring villages, the average rent charged by the company of Blanzy is from 4.50 to 6 francs ($0.87 to $1.16). Thirty-nine cottages are let at 2.50 francs (48 cents), 7 at 3 francs (58 cents), 534 at 4.50 francs (87 cents), 13 at 5 francs (97 cents), 149 at 6 francs ($1.16), 4 at 9 francs ($1.74), and the others under various special arrangements.

The direct provision of houses by the company, such as has been described above, forms, however, the least interesting part of its efforts for the housing of its employees. Much greater interest attaches to the means that it has adopted for encouraging the workingmen to become the owners of their own homes. To do this, the first step taken by the company was to acquire several tracts of ground adjoining its mines. These it subdivided into lots of from 20 to 25 ares (21,528 to 26,910 square feet) in size, after having laid out the streets of a village. These lots it placed at the disposition of its miners at their cost price, which is only one-fifth or one-tenth as much as they would have to pay elsewhere in the neighborhood. Any miner could ask for the concession of a lot, and if his request was granted an advance of 1,000 francs ($193) with which to build was at the same time made to him, the whole being repayable in ten annual installments.

That the workingmen have appreciated the advantages offered to them is shown by the following figures: In 1888 the total number of workingmen having received concessions of ground was 316, and the area of ground sold to them was 77.7393 hectares (192 acres), at an average value of 2,629.14 francs ($507.42) per hectare. To enable them to build there had been advanced to 303 of their number 235,492 francs ($45,449.96), an average of 777.20 francs ($150) each. In 1893, five years later, these figures had risen to 400 for the total number of workingmen having received concessions and to 88.9936 hectares (220 acres) for the area of ground sold, at an average value of 2,721.95 francs ($525.34) per hectare, and 242,019 francs ($46,709.67) had been advanced to 387 workingmen, or an average of about 625 francs ($120.63) each.

The system by which land was provided and money advanced to workingmen with which to build was adopted in 1857. To supplement this the company, by regulations dated May 2, 1874, offered to advance money, *with which to build, to* workingmen who were either the owners

of land elsewhere or for any reason desired to build on land other than that offered by the company. Including those who took advantage of these later regulations the total number of workingmen having received advances in 1893 was 540, and the total amount of the advances 469,792 francs ($90,669.86).

The system of grants of land and advances of money under the two regulations that have just been described developed, however, several serious drawbacks. Many of the workingmen, when they undertook to build, were in possession of totally inadequate means for that purpose, and the advances of the company did not suffice to pay all the building expenses. The workingmen were, nevertheless, so desirous of availing themselves of the advantages offered that they would borrow elsewhere relatively large sums, sometimes at high rates of interest, and, as a result, they would be kept a long time under the burden of a heavy debt. The houses, likewise, were occasionally of a totally unsuitable character. The greatest hardship, however, was occasioned in those cases where death intervened before either the company or other creditors had been repaid their advances. The property, in consequence, would be sold or otherwise disposed of under unfavorable circumstances; lawyers' fees would often have to be paid, and the families would be left in great distress. It was desirable, therefore, to devise some means by which these disadvantages could be obviated. As a result important modifications were made in 1893 in the regulations of 1874. Henceforth the amount of the advance allowed to workingmen with a view to building was not limited to 1,000 francs ($193), but, if need be, could equal the total value of the house to be built, without, however, exceeding the sum of 2,500 francs ($482.50). The maximum delay for the repayment of the advance was at the same time extended to fifteen years. The essential innovation, however, was that by which the prospective builder was required to contract a mixed or tontine life insurance policy to the amount of his advance.

The premiums paid on this policy, therefore, take the place of the annual installments formerly paid to the company. The borrowing workingman pays, or rather agrees that there shall be deducted from his wages, during the time indicated in his policy, first, the amount of his insurance premiums, and, second, interest at 3 per cent on the sum that has been advanced to him. At the date fixed upon, or at the death of the workingman, if his death takes place before the expiration of the term, the insurance money serves to repay the amount advanced and a complete title to the property is secured.

A most important feature of the new regulations is that whereby the administration of the whole system of advances is turned over to La Prudence, a society that the laborers and officials of the company have organized to take charge of their business interests, and of which a description is given in another place. The workingman who wishes to build addresses himself to La Prudence instead of to the company.

This society, after making an investigation, allows the advance. The policy of insurance is taken out in favor of the society, and it advances the money necessary for building. On this, as has already been stated, it receives interest at the rate of 3 per cent. In order to stimulate the society to encourage the acquiring of homes the company pays to it annually 45 francs ($8.69) during fifteen years for every house built by a workingman under these auspices.

The granting of these encouragements and aid by the company has been productive of remarkably successful results. A number of important individual settlements have grown up that have an appearance quite different from that of a regular workingmen's village. In 1889 there were 1,079 workingmen who were owners of the houses that they occupied and of the surrounding ground. In 1892 this number had increased to 1,306, or over 25 per cent of the total number of workingmen who were heads of families. But the new regulations have succeeded in a yet more remarkable degree. In the year succeeding the date of their application, April 15, 1893, 113 workingmen took out insurance policies and commenced the acquisition of homes, representing a total amount borrowed of 266,456 francs ($51,426.01). The popularity of the new system is very natural if one takes into consideration that in this way a workingman can become the owner of a house of the value of about 2,500 francs ($482.50) in fifteen years while making an annual payment of little if any in excess of an ordinary rent. The figures given above concerning house ownership represent, moreover, only those workingmen who have become house owners by profiting by the advantages offered by the company. As to those who have bought with their own savings or have acquired homes in any other way, they are not represented in the total as given, though their number is believed to be an important one.

OLD-AGE PENSIONS.

Next to the matter of housing, that of the care of their old employees has been and must continue to be the subject of the greatest solicitude on the part of the large employers of labor in Europe. The company of Blanzy had the honor to be the first mining company to establish at its own expense a fund for the pensioning of its workingmen in their old age. Its creation dates from January 25, 1854. Until 1882, however, the benefits of the fund were limited to employees working below ground. As constituted during this period, provision was made for pensions of from 180 to 240 francs ($34.74 to $46.32) a year to unmarried and of from 240 to 300 francs ($46.32 to $57.90) to married workingmen when they had reached a certain age and had worked a certain number of years for the company, half of the pension to be continued to the wife on the death of the pensioner. In 1881 the company determined to modify its regulations so that, dating from January 1, 1882, all of its employees, in whatever capacity they were employed, should participate

	years of service.	years of service.	years of service
Master miners, or head foremen	$130.28	$138.96	$147.6
Gang leaders, foremen, underground checkers, and masters of tugs	101.33	108.08	114.8
Underground workingmen, underground mechanics, wharf and surface checkers, and yard foremen	86.85	92.64	98.4
Blacksmiths, fitters, modelers, carpenters, wheelwrights, engineers, etc	57.90	61.76	65.62
Surface workmen working in yards, wharf laborers, navvies, and railway hands	46.32	49.41	52.50
Widows, women, and girls whose names are on the pay rolls	34.74	37.06	39.37

As the pensions are purely in the nature of a the company, there is no special account of recei of a fund. The results are shown only by a stat of pensioners from year to year and the total an the pensions. This is done for the ten years fro in the table that follows:

EXPENDITURES FOR PENSIONS BY THE WORKINGMEN BLANZY, 1884-85 TO 1893-94.

Year.	Pensioners.	Total pensions.	Average pension.	Year.	
1884-85	216	$14,531.93	$67.28	1889-90	
1885-86	242	16,480.25	68.10	1890-91	
1886-87	249	17,418.19	69.95	1891-92	
1887-88	263	17,764.87	67.55	1892-93	
1888-89	280	18,213.75	65.05	1893-94	

The enactment of the law of 1894, regarding the has necessitated the reorganization of this syster

in which the pensions are accorded. There is almost a consensus of opinion that the best system of free insurance is that whereby the workingmen are required to contribute to an equal extent if possible with the employers in the constitution of an insurance fund. They are at the same time allowed to participate in the management of the fund; and the pension is one that when acquired the recipient accepts with a feeling that he is receiving not a bounty but rather a return for his years of sacrifice and economy.

In determining this question much depends on the character of the workingmen in each locality, but it is difficult to believe that workingmen who could to so large an extent become house owners are not in a position to participate actively in the constitution and management of an insurance fund as is done by their brother miners in the north. It is more than ever difficult to understand, as these principles have been exactly carried out in the insurance fund for the higher grades of employees of the company.

In 1880 the company organized a second pension fund for the benefit of its engineers, physicians, and office employees. In this case, however, the expense is not entirely borne by the company. The receipts of the fund consist of an annual payment by each member of a sum equal to 2½ per cent of the total amount he has received in wages, a subsidy by the company of an equivalent amount, and miscellaneous receipts, such as interest on funds invested, fines, etc. A member may retire and receive a pension after he is 55 years of age and has been employed twenty-five years. The value of the pension equals one-half the average annual salary that the pensioner has earned during the last five years of his employment, and is increased by one-fifteenth for each additional year of service if he remains in the employ of the company longer than twenty-five years before retiring, but this pension shall not exceed two-thirds of the average annual salary based upon the last five years of service. The minimum and maximum pensions are 1,200 francs ($231.60) and 9,000 francs ($1,737), respectively, per annum. In case of death the pension to half the amount is continued to the widow.

The following table gives the results of the operation of this fund during the ten years 1884–85 to 1893–94:

FINANCIAL OPERATIONS OF THE PENSION FUND FOR HIGHER EMPLOYEES AT BLANZY, 1884–85 TO 1893–94.

Year.	Total receipts.	Total expenditures for pensions.	Surplus.	Capital at end of year.	Pensioners.	Average pension.
1884–85	$4,247.75	$616.57	$3,631.18	$26,129.62	7	$88.08
1885–86	4,361.71	820.49	3,541.22	29,670.84	8	102.56
1886–87	4,628.39	2,466.37	2,162.02	31,832.87	13	189.72
1887–88	5,792.28	2,874.35	2,917.93	34,750.80	14	205.31
1888–89	6,914.48	2,673.89	4,240.59	38,991.39	16	167.12
1889–90	7,132.44	3,978.42	3,154.02	42,145.42	18	221.02
1890–91	11,606.75	4,114.36	7,492.39	49,637.81	19	216.55
1891–92	12,376.03	4,477.91	7,898.12	57,535.93	19	235.68
1892–93	8,968.32	4,073.67	4,894.65	62,430.58	18	226.32
1893–94	9,340.87	3,904.74	5,436.13	67,866.72	19	205.51

In its organization the company has given to
ferentiates it widely from the ordinary mutual
The company has made it the instrumentality for
all its various forms of aid and relief, not only suc
relief to sick and injured workingmen, but the pr
facilities, the administration of the medical serv
of direct pecuniary aid to widows and orphans.

The society is therefore a mutual aid society i
contribute by the payment of dues to the constitu
and at the same time a company's aid fund, as a nu
of aid are declared by the constitution to be entir
the company.

The policy of thus giving its aid through an inde
aid society has been productive of very beneficial r

The constitution of this society sets forth in the
the objects of the society, the amount of relief
under which it is granted, and the organization
of the society. These provisions can here be giv
summary way.

The objects of the society are stated to be: The a
ees of the company in cases of accidents and si
granting of free medical attendance and medical su
ment of cash benefits to such sufferers during the
unable to work; the providing for old and incapac
the aiding of the widows, children, and parents of
during the progress of the work of mining, or wh
abled; the provision free of cost of text-books an

equal to 1 per cent, and those of the second class of a sum equal to 2½ per cent of the amount of their wages. The subsidies of the company must equal the total sum paid in as dues by the second class. In addition to this subsidy, the company obligates itself to maintain, at its own expense, infant schools for the children and primary schools in connection with workshops, where all the children of employees will be received gratuitously; to provide the necessary ground and buildings and to keep in repair a hospital for workingmen injured by accidents, and in certain cases for those suffering from serious illness, a pharmacy with laboratory and pharmaceutic stock, a sufficient number of consultation rooms for physicians, and also the payment of the salaries of physicians, pharmacists, nurses, etc.

The first great category of relief granted by the society is that to members when sick. In general all members have a right to receive medical attendance and medicines gratuitously after they have been enrolled one month. The wives and children of members who have been enrolled two months are likewise entitled to similar aid.

The second class of assistance afforded by the society is that of cash benefits to members during the time they are incapacitated for work as the result of sickness or accident. The constitution contains elaborate regulations and schedules, showing when such benefits are due and the standards according to which their amounts are determined. These schedules are shown in the following table:

SCHEDULE OF BENEFITS FOR SICKNESS AND ACCIDENT PAID TO MEMBERS OF THE MUTUAL AID SOCIETY AT BLANZY.

Beneficiaries.	Daily benefit for—	
	Injury or sickness resulting from work.	Ordinary sickness lasting more than seven days.
Workingman, unmarried or widower, 17 years of age or over	$0.24 to $0.34	$0.14 to $0.19
Workingman, married, living with his wife	.29 to .34	.19 to .24
Each legitimate child under 13 years of age, as supplement to parents' indemnity	.06 to .07	.05 to .06
Wife, widow, or girl 17 years of age or over employed by company	.14 to .19	.12 to .14
Child 13 to 17 years of age employed by company	.14	.10 to .12

It will be noticed that a distinction is made between sickness or accident resulting from the prosecution of the work and that contracted under other conditions, the benefits being greater in the former than in the latter case. In exceptional cases, where the injured or sick workingman has an unusually large number of persons dependent upon him for support, the amount of the benefit as fixed in the regular schedules can be slightly increased. In no case, however, can the pecuniary aid accorded to a married man, for himself, his wife, and children, exceed 2.25 francs (43 cents) in case of injury from an accident, or 1.75 francs (34 cents) in case of sickness. No benefit is paid for an injury or sickness resulting from drunkenness or other misconduct.

When a sickness, not occasioned directly by the work, continues more

SCHEDULE OF PENSIONS FOR INVALIDITY PAID TO
AID SOCIETY AT BLANZY

Beneficiaries.
Workingman 17 years of age or over.....
Working woman 17 years of age or over.....
Child 13 to 17 years of age.....

A member who is married at the time he bec
sion receives in addition, during the life of his
francs (6 cents) per day to his pension, and fo
under 13 years of age, 0.25 francs (5 cents) addit
of the husband or father such additional pensio
widow until her remarriage, and to the childre
years of age. Save in exceptional cases, how
receive more than 1.75 francs (34 cents) for parti
for total invalidity.

The widow of a workingman killed by an ac
work is entitled to a pension from the day of
20 francs ($3.86) per month if she is under 60 ye
($4.83) if she is over that age. In addition the
of her husband are defrayed by the society.
widows, moreover, receive 6 francs ($1.16) per
years of age and 8 francs ($1.54) thereafter until
having neither father nor mother, of workingn
while at work receive 10 francs ($1.93) per mont

Provisions are also made for the granting of

council may, in their option, grant them a monthly pension not to exceed the amounts shown in the following table:

SCHEDULE OF PENSIONS FOR OLD AGE PAID TO MEMBERS OF THE MUTUAL AID SOCIETY AT BLANZY.

Beneficiaries.	Years of service.	Minimum age.	Maximum aid (per month).
Workingmen	15	45	$2.90
Working women	15	45	1.93
Workingmen	20	50	3.86
Working women	20	50	2.51
Workingmen	25	55	4.83
Working women	25	55	3.09

Additional provisions are likewise made for the pensioning of the widows and children of workingmen pensioned according to these provisions.

In the foregoing résumé of the conditions under which relief is granted, by no means all of the cases under which such aid is granted have been enumerated, or the special conditions under which relief is increased or discontinued. To do so would have necessitated the translation of the constitution in extenso. Only the general classes of aid could be mentioned.

The society, it should be said, is administered by a council of 23 members, of which the general manager, the engineer in chief, and the general secretary of the company are ex officio president, and first and second vice-presidents, respectively. The other members consist of a treasurer and a secretary, chosen from among the office force, and 18 other members, three of whom are elected from among the engineers, chief clerks, and office force; three from among the master miners, foremen, gang leaders, checkers, overseers, and yard masters; six from among the miners proper; two from among the laborers and other employees working below ground; two from among the workingmen engaged in building construction, and watchmen and doorkeepers, and two from among the railway employees and other surface workingmen.

The great variety of conditions under which relief is given, and the number of objects of expenditure, render it impossible to give statistics of the operations of the society in detail. The following table, however, shows for three recent years the receipts and expenditures of the society, according to the main objects for which such expenditures were made:

RECEIPTS AND EXPENDITURES OF THE MUTUAL AID SOCIETY AT BLANZY, 1888, 1891, AND 1893.

	1888.	1891.	1893.
RECEIPTS.			
Subsidy of company	$27,931.86	$41,191.41	$41,545.21
Dues of members	28,537.75	41,939.51	42,331.76
Interest on capital	4,226.70	5,008.66	5,583.85
Other receipts	1,097.17	811.52	854.83
Total	61,793.48	88,951.10	90,315.65

Expenses of administration	5,
Other expenses	1,
Balance	
Total	61,
Assets December 31	107,

MEDICAL SERVICE.

The company has carried out the obligations im constitution of the mutual aid society in the mos most important of these are those for the organ service and the provision of educational facilities of high efficiency has been created. Four physici pany, give their entire attention to the care of employees of the company.

The following classes are entitled to both med cines: All employees a part of whose wages are re fund; their wives when living and residing with t when residing with them and under 12 years of dren over that age if they are unable to work an their own; their parents residing with them w of their own; all pensioners of the company, their under 12 years of age and those over 12 if unable t children drawing a pension by virtue of the regul society.

At Montceau the workingmen when sick prefe treated in their own homes. This is encouraged b only the most severe cases of illness are therefore

at its own expense, the building of a new edifice. In 1871 it was finished and formally opened. It has a very imposing appearance, and its interior arrangement appears to be perfect. M. Burat, writing about the coal-mining industries in 1872, says of it:

This establishment, all the details of which are studied most carefully, may be considered as a perfect model. It covers 533 square meters (5,737 square feet), the main building measuring 22 by 11 meters (72 by 36 feet) and the wings 17 by 8.50 meters (56 by 28 feet). Two stories of well heated and ventilated rooms are fitted up to accommodate 30 patients, and could accommodate twice as many if necessary. From the main wards large doors open into a chapel, which allows the sick patients to receive the instructions and consolations of the church. Halls for consultation, bathrooms, surgery, pharmacy, and dispensary—everything has been foreseen and skillfully arranged. There is a garden and terrace for convalescent patients. It seems as though one had sought to take from the word "hospital" the unpleasant associations which it arouses in the mind of the workingman, but which are less repugnant to him when he is the recipient of so much kindness.

The Sisters of Saint Vincent de Paul have charge of the new hospital, as they had of the old one. Mention should also here be made of a fine new building just opened that is intended both as a hospital and as a home for old workingmen. Several months before his death M. Léonce Chagot, the general manager of the company, commenced the construction of this building at his own expense. After his death his widow completed it and donated it to the company, with the proviso that it should be used for the care of the old workingmen who, through any casualty, were left alone in the world. Its objects are exactly analogous to those of the Soldiers' Homes in this country. No expense has been spared to make it a comfortable and attractive home. It will accommodate 40 persons. The company has accepted the gift, and in the future will support all the expenses connected with its maintenance.

SCHOOLS.

Few, if any, mining companies have exceeded that of Blanzy in the sacrifices made for the provision of educational facilities for the children of their employees. The company at the present time supports 21 schools, 6 of which are infant, 8 boys', and 7 girls' primary schools. August 1, 1893, there were in attendance a total of 6,292 scholars—1,830 in the infant, 2,197 in the girls' primary, and 2,265 in the boys' primary schools. The instructors number 148, of whom 61 are Marist Brothers and 87 Sisters of Saint Vincent de Paul and of Saint Joseph de Cluny. Examinations are held every year, and scholarships of 450 and 225 francs ($86.85 and $43.43) are awarded to those making the best record of efficiency to enable them to continue their studies in advanced schools.

The first expense of the establishment of these schools and of the workshops attached to them, an account of which follows, amounted to

always been admitted upon the request of their p
hand the employees of the company are at perfec
children to other schools, though few avail them

TRADE SCHOOL SHOPS FOR GI

From a number of points of view the most adm
work of the company regarding education is th
shops in connection with the girls' schools. In t
learn a trade, or more frequently learn to make an
ing. There are seven shops in all; knitting by han
in four, shoemaking in another, and in all the chief
and clothes making. Each girl can either work fo
or for sale to the public as she chooses. The comp
machines and tools and remunerates the directors.
constantly extended. In 1888 there were 219 girls
rooms, their average earnings being 16.55 francs ($3
some earned as much as 50 francs ($9.65) or more.
of girls was 289, with average earnings of 17.50 fr
1893 their number had increased to 355, and their
22 francs ($4.25) per month. In addition to wage
are given to the most proficient and industrious
admittance to the workrooms far exceeds their cap
is therefore considered almost in the nature of a sch
of satisfactory work in the schools proper.

LA PRUDENCE, A WORKINGMEN'S BUSINE

Under the encouragement of the company th

deeds, management of lawsuits, settling of estates, conduct of correspondence, and other kinds of business.

To secure this La Prudence was organized March, 1887, as a joint stock company. The capital stock, amounting originally to 12,000 francs ($2,316), has been increased from time to time until now it amounts to 118,000 francs ($22,774), divided into shares of 50 francs ($9.65) each. There are now 880 shareholders, three-fourths of whom at least are workingmen. They are divided into two classes of honorary and ordinary shareholders. The former pledge themselves not to receive a dividend exceeding 5 per cent. They have a right to their share in the reserve fund and can subscribe to any number of shares, and have in the general assemblies the number of votes that their shares confer upon them.

The ordinary shareholders can not possess more than 20 shares each. The management of the society is intrusted to a general manager elected by the general assembly of shareholders, assisted by a board of 15 members elected in a similar way.

In the beginning the intention of the founders was that the society would simply be the business manager of its members, while at the same time offering a means for the investment of savings. This bringing together of workingmen in business relations has, however, been productive of further results. The demonstration of the advantages of association has been such that the members have been led to use their society for the creation of various other institutions for their mutual benefit. Thus there have been organized within the society several quite distinct departments.

The first of these is that of the business agency, for which the society was originally created. In the beginning, business was transacted only with members of the society, all of whom were employees of the Blanzy company. But by degrees the work spread, and to-day La Prudence draws its patrons from every calling, and deals with the public at large. The business of members is transacted gratuitously. Outsiders pay according to a fixed schedule of charges. This department is very much appreciated by the members and by the public as well.

A second department is that of the bank. This department has now become the most important part, at least from the financial point of view, of the activities of the society.

The following figures, contrasting the operations of the bank during the years 1891 and 1892, will serve to convey an idea of its importance and the character of the work that it performs:

CASH STATEMENT.

Balance on hand January 1, 1892	$19,504.44
Balance on hand January 1, 1893	15,171.80
Receipts during 1892	724,373.52
Paid out during 1892	728,706.17
Total financial operations, 1892	1,453,079.69
Total financial operations, 1891	1,127,986.53
Increase	325,093.16

PAPER DISCOUNTED.

Value of paper discounted, 1892	$220,455.29
Value of paper discounted, 1891	198,850.26
Increase	21,605.03

NEGOTIATION OF PROMISSORY NOTES.

On hand January 1, 1892, 79 promissory notes, amounting to	1,992.62
On hand January 1, 1893, 142 promissory notes, amounting to	6,899.22
Loaned on 3,636 promissory notes	254,079.94
Received on 3,573 promissory notes canceled	249,173.34
Total of operations during year 1892	503,253.28
Total of operations during year 1891	403,572.10
Increase	99,681.18

COLLECTION OF BILLS.

On hand January 1, 1892, 1,198 bills for collection, amounting to	35,422.19
On hand January 1, 1893, 1,108 bills for collection, amounting to	35,832.20
Received for collection during year, 19,896 bills, amounting to	628,732.34
Collected during year, 19,986 bills, amounting to	628,322.33
Total of operations during year 1892	1,257,054.67
Total of operations during year 1891	989,876.49
Increase	267,178.18

DEPOSITORS' ACCOUNTS.

Deposits on hand January 1, 1892	21,063.91
Deposits on hand January 1, 1893	17,497.88
Deposited during year	193,620.46
Withdrawn during year	197,186.49
Total of operations during year 1892	390,806.95
Total of operations during year 1891	256,923.05
Increase	133,883.90

The third branch of La Prudence is the savings bank department. Two distinct savings banks have been created. The first, called La Tirelire (The Money Box), is a schools' savings bank. Depositors must be under 21 years of age and either attend the company's schools or be employed in the company's works. Deposits bear interest at 4 per cent, compounded annually. As soon, however, as an account amounts to 200 francs ($38.60) the society has the option of converting it into a savings certificate in the ordinary shareholders' savings bank. This latter bank, called La Fourmi (The Ant), after a similar organization in Paris, is similar in its operations to other savings banks. The following figures concerning the operations of the two banks during the years 1891 and 1892 illustrate the importance of their operations:

Cash on hand January 1, 1892	$12,258.98
Cash on hand January 1, 1893	14,141.23
Receipts during year 1892	24,764.89
Paid out during year 1892	22,882.64
Total of operations during year 1892	47,647.53
Total of operations during year 1891	29,942.80
Increase	17,704.73

A fourth department is the relief fund. Participation in this is purely optional. The fund is constituted through the payment of dues, the receipt of gifts, etc. It is unnecessary to analyze its operations.

The Society of La Prudence has had an unprecedented success among the members of the Blanzy company, and it has exercised a notable influence throughout the surrounding country. Its progress has surpassed all expectations, and it is still increasing. It has established a kind of brotherhood and solidarity between employers and workingmen and other inhabitants of the locality that has been very influential in the maintenance of friendly relations.

The Blanzy company has fully appreciated all these facts, and has encouraged the society in every possible way. It has provided for it a very fine building, the upper story of which is fitted up as a club room for the shareholders. It has with it a running account, borrowing from the society at 4 per cent interest, thus insuring that the society shall never have on hand unproductive money. It pays a small subsidy for trifling services, such as letters, consultations, representation in the law courts, and in general makes it a medium for the transaction of business whenever possible.

Its most notable employment, however, is that whereby it has been made the agent for managing the system lately inaugurated by the company, of advancing money to workingmen with which to build homes. The operation of this scheme, as well as the relation of La Prudence to it, has been fully described under the section devoted to workingmen's homes. This work has already become one of the most important services rendered by the society.

The following general statement of the assets and liabilities of the society for the years 1889 and 1893 shows the growth in importance of the society during these years:

ASSETS AND LIABILITIES OF LA PRUDENCE, 1889 AND 1893.

	1889.	1893.
ASSETS.		
Cash	$168.89	$17,243.46
Real estate	.....	2,085.06
Running accounts	6,631.91	37,829.97
Loans	2,288.32	10,697.50
Stocks, bonds, etc	5,856.33	66,520.12
Miscellaneous credits	2,004.60	21,021.28
Money advanced to workingmen to build homes	.....	29,555.14
Total	16,950.05	184,952.53
LIABILITIES.		
Obligations on account of advances made for building	.....	17,389.30
Capital	7,729.65	26,219.15
Deposits	7,243.06	64,488.44
Deposits in La Tirelire	1,033.59	2,700.36
Miscellaneous liabilities	943.75	74,155.28
Total	16,950.05	184,952.53

existing conditions. The conclusions there reached apply in almost every particular to Blanzy as well. In every respect the workingman's conditions seem to have improved, and while the tendency is for the employer to make greater sacrifices for his employees, the latter are allowed a constantly increasing participation in the management of institutions intended for their benefit. The most important series of tables given in the conclusion for Anzin was that showing the stability of employment. A similar set of tables is here given for Blanzy. An analysis of them along the same lines shows almost identical results. These can be easily seen from an inspection of the tables themselves, as they are very simple in construction.

EMPLOYEES OF THE COAL MINING COMPANY OF BLANZY AT WORK BELOW GROUND, BY AGES AND YEARS OF SERVICE, DECEMBER, 1892.

Ages.	Years of service.												Total.
	Under 1.	1 or under 2.	2 or under 5.	5 or under 10.	10 or under 15.	15 or under 20.	20 or under 25.	25 or under 30.	30 or under 35.	35 or under 40.	40 or under 45.	45 or over.	
13 y'rs or under 18.	61	99	484	.....	.....	.....	.....	.....	.....	.....	.....	.....	644
18 y'rs or under 23.	55	198	295	386	.....	.....	.....	.....	.....	.....	.....	.....	934
23 y'rs or under 28.	63	191	172	179	214	.....	.....	.....	.....	.....	.....	.....	819
28 y'rs or under 33.	37	147	151	143	105	113	25	5	.....	.....	.....	.....	726
33 y'rs or under 38.	33	78	63	86	81	97	49	.....	.....	.....	.....	.....	487
38 y'rs or under 43.	14	51	26	41	57	49	65	37	4	.....	.....	.....	344
43 y'rs or under 48.	15	11	14	22	26	43	35	49	23	.....	.....	.....	238
48 y'rs or under 53.	.....	.....	15	20	21	28	32	23	24	19	.....	.....	182
53 y'rs or under 58.	.....	.....	.....	.....	17	15	23	14	24	15	17	.....	125
58 y'rs or under 63.	.....	.....	.....	.....	14	13	21	25	17	11	15	.....	116
63 y'rs or under 68.	.....	.....	.....	.....	.....	.....	12	14	9	12	7	2	56
68 y'rs or over.	.....	.....	.....	.....	.....	7	8	7	8	7	3	.....	40
Total.	278	775	1,220	877	535	365	270	174	109	64	42	2	4,711

EMPLOYEES OF THE COAL MINING COMPANY OF BLANZY AT WORK ABOVE GROUND, BY AGES AND YEARS OF SERVICE, DECEMBER, 1892.

Ages.	Years of service.												Total.
	Under 1.	1 or under 2.	2 or under 5.	5 or under 10.	10 or under 15.	15 or under 20.	20 or under 25.	25 or under 30.	30 or under 35.	35 or under 40.	40 or under 45.	45 or over.	
13 y'rs or under 18.	215	297	222	.....	.....	.....	.....	.....	.....	.....	.....	.....	734
18 y'rs or under 23.	65	89	121	89	.....	.....	.....	.....	.....	.....	.....	.....	364
23 y'rs or under 28.	86	104	84	101	60	12	.....	.....	.....	.....	.....	.....	447
28 y'rs or under 33.	92	123	72	52	36	28	.....	.....	.....	.....	.....	.....	403
33 y'rs or under 38.	77	97	40	23	32	24	4	.....	.....	.....	.....	.....	297
38 y'rs or under 43.	37	35	39	24	16	15	11	11	.....	.....	.....	.....	188
43 y'rs or under 48.	23	24	19	73	36	39	8	19	17	4	.....	.....	262
48 y'rs or under 53.	.....	.....	.....	12	27	32	18	15	9	13	.....	.....	126
53 y'rs or under 58.	.....	.....	.....	.....	.....	9	7	5	3	.....	.....	.....	24
58 y'rs or under 63.	.....	.....	.....	.....	4	5	3	12	9	5	3	.....	41
63 y'rs or under 68.	.....	.....	.....	.....	12	9	15	13	3	.....	.....	.....	52
68 y'rs or over.	.....	.....	.....	.....	5	7	2	.....	7	.....	.....	.....	21
Total.	595	769	597	374	228	180	68	75	48	22	3	.....	2,959

better the condition of the inhabitants. A glance at the table giving the annual sacrifices entailed upon the company by its social work shows how diversified are its activities in this direction. The following paragraph can only attempt to recapitulate briefly the most important features of its work that have not yet been described:

The climate of Montceau is a somewhat rigorous one, and the item of expense for fuel is an important one. The company allows all underground workingmen 72 hectoliters (204.3 bushels) of coal, representing a market value of 72 francs ($13.90), free of cost annually. Other workingmen enjoy the privilege of buying coal at reduced rates. During the year 1891-92 there were distributed to underground workingmen 296,005 hectoliters (839,973 bushels), worth 296,005 francs ($57,128.97). Surface workingmen received 8,918 fuel grants, worth 12 francs ($2.32) each, and for which they pay 3 francs (58 cents), representing, therefore, a sacrifice by the company of 80,262 francs ($15,490.57). In addition, the company provides the pensioned and superannuated workingmen, the schools, the hospital, the vicarage, and a great many poor with coal free of cost. During the year 1891-92 the total value of the coal given away amounted to 396,716.20 francs ($76,566.23). To but mention other objects, the company defrays the expense of a band organized among its employees; it has built and kept in repair several churches; it has provided free bathing establishments; it conducts a small circulating library; it has erected a large flouring mill, in order to cheapen the cost of flour to its employees, and it contributes materially to the support of the various societies for sport and recreation that the workingmen have organized among themselves. Among the latter may be mentioned the gun club, the gymnastic club, the fencing club, and young men's and girls' social clubs.

EXPENDITURES OF THE COAL MINING COMPANY OF BLANZY FOR THE BENEFIT OF EMPLOYEES, BY OBJECTS OF EXPENDITURE, 1887-88, 1891-92, AND 1892-93.

Object of expenditure.	1887-88.	1891-92.	1892-93.
Housing of workingmen	$36,562.90	$47,997.80	$42,083.68
Mutual aid society	a 27,931.86	42,423.95	44,925.56
Pension fund, workingmen	b 19,251.46	21,715.83	24,368.71
Pension fund, higher employees	2,096.28	6,988.05	4,778.67
Schools and workrooms	33,701.11	42,059.00	45,229.10
Health service	7,776.96	11,121.63	9,257.46
Free fuel	61,716.86	76,566.23	94,955.20
Other subsidies to workingmen's societies (direct aid, etc)	26,889.98	48,318.68	48,225.73
Total	215,927.41	297,191.17	313,824.11

a It will be noticed that these figures agree with those given for the calendar year 1888, page 349. The explanation is not known. The figures in both cases are as furnished by the company.
b These figures do not agree with those given on page 344. The explanation is not known. The figures in both cases are as furnished by the company.

CONCLUSION.

In the preceding account of the conditions at Anzin a general summary has been given of the influences surrounding the life of the workingmen, especially *from the standpoint* of a comparison of past with

[illegible] A similar set of tables is here
analysis of them along the same lines shows a
These can be easily seen from an inspection of
as they are very simple in construction.

EMPLOYEES OF THE COAL MINING COMPANY OF BL
GROUND, BY AGES AND YEARS OF SERVICE,

Ages.	Years of service.							
	Under 1.	1 or under 2.	2 or under 5.	5 or under 10.	10 or under 15.	15 or under 20.	20 or under 25.	25 or under 30.
13 y'rs or under 18.	61	99	484	.....	.....	.....	.....	.....
18 y'rs or under 23.	55	198	295	386	.....	.....	.....	.....
23 y'rs or under 28.	63	191	172	179	214	.....	.....	.....
28 y'rs or under 33.	37	147	151	143	105	113	25	5
33 y'rs or under 38.	33	78	63	86	81	97	49	.....
38 y'rs or under 43.	14	51	26	41	57	49	65	37
43 y'rs or under 48.	15	11	14	22	26	43	35	49
48 y'rs or under 53.	.....	.....	15	20	21	28	32	23
53 y'rs or under 58.	.....	.....	.....	.....	17	15	23	14
58 y'rs or under 63.	.....	.....	.....	.....	14	13	21	25
63 y'rs or under 68.	.....	.....	.....	.....	.....	.....	12	14
68 y'rs or over....	.....	.....	.....	.....	.....	7	8	7
Total.....	278	775	1,220	877	535	365	270	174

EMPLOYEES OF THE COAL MINING COMPANY OF BLA
GROUND, BY AGES AND YEARS OF SERVICE, DE

Ages.	Years of service.								
	Under 1.	1 or under 2.	2 or under 5.	5 or under 10.	10 or under 15.	15 or under 20.	20 or under 25.	25 or under 30.	3 u
13 y'rs or under 18.	215	297	222	.....	.....	.....	.....	.....	..
18 y'rs or under 23.	65	89	121	89	.....	.....	.....	.....	..
23 y'rs or under 28.	86	104	84	101	60	12	.....	.....	..
28 y'rs or under 33.	92	123	72	52	36	28	.....	.....	..
33 y'rs or under 38.	77	97	40	23	32	24	4	.....	..
38 y'rs or under 43.	37	35	39	24	16	15	11	11	..
43 y'rs or under 48.	23	24	19	73	36	39	8	[illegible]	
48 y'rs or under 53.	.....	.....	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

THE SWEATING SYSTEM.

BY HENRY WHITE, GENERAL SECRETARY, UNITED GARMENT WORKERS OF AMERICA.

The sweating system, which makes of the home a workshop, even in the crowded tenement, and drafts the members of the family into service, presents a problem so serious as to command the attention of reformers and statesmen in all nations having the modern industrial system fully developed.

The term "sweating system" has a general meaning, but is specifically used to describe a condition of labor in which a maximum amount of work in a given time is performed for a minimum wage, and in which the ordinary rules of health and comfort are disregarded. It is inseparably associated with contract work, and it is intensified by subcontracting in shops conducted in homes. Such conditions prevail to a distressing degree in localities having a large, herded foreign population, and among people known for excessive industry and thrift—virtues otherwise considered indispensable to prosperity and happiness Recently arrived foreign working people crowded into the big cities are the most helpless, and, in order to barely live, are willing to submit to almost incredible exactions. It is thus that this form of labor soon outcompetes and displaces all other forms and becomes the standard for the particular industry in which it is introduced.

The use of machinery in the making of garments has not figured largely in displacing labor and reducing the standard of skill formerly required, but rather the subdivision of labor, especially in the cheaper grades of work. This has made the garment-making industry an easy refuge for immigrants, and enables them to work in small shops which in many other industries would be inadequate to compete with larger and better-equipped factories. This class of workers, therefore, become wholly dependent upon the knowledge that they have acquired of one small part of the trade, and are incapable of advancement through individual effort.

High rents contribute their share of responsibility for the sweating system. If rents were cheap there would be a distinct advantage in working in separate rooms or shops. This is invariably the result, for in localities where rents are lower, the shops are larger and the evils not so acute. The saving in rent is an important item. To combine a kitchen, bedroom, and workshop, to utilize a garret or a loft over a

stable, saves rent even though it sacrifices the health of the worker and the products of such shops spread sickness and death among the consumers.

The conditions that make the sweating system possible may be summed up as follows: First, crowded population in large cities; second, high rent; third, contract work.

The sweat shop as we know it, if stripped of some of its obnoxious features, represents in a degree the small shop of the master and journeymen, conducted in connection with the household, before the advent of the factory system. In the small towns and villages of eastern and southern Europe this system still continues, particularly in the tailoring trade. The similarity is heightened by the fact that nearly all of the sweaters and sweat-shop workers, and many of the clothing and cloak manufacturers, are natives of eastern Europe, and it is thus that this most undesirable form of industry, the sweating system, became so easy of development and was engrafted on our manufacturing system. In comparison with the more primitive workshop, the sweat shop differs materially. In the former the employer was also the dealer, and the contracting of work did not exist. As the shopkeeper or master depended for patronage upon his immediate neighbors, the keen competition of modern business enterprise was not a factor, and the present leveling struggle for employment was unknown. Neither were the social contrasts so great. The workers labored more leisurely, their wages were naturally lower, and their wants were but few.

The opportunities for cheap labor afforded by the sweat shop were in time taken advantage of by those manufacturers who evidently eased their conscience under the plea of necessity, and apparently it was nobody's business how the work was done as long as a certain price was agreed upon with the sweater who begged for the work.

American enterprise, always alert to introduce the newest productive methods, is credited with first making an extensive use of the labor-cheapening sweating system. Immediately after the close of the civil war a large immigration followed, coming largely from the countries of eastern and southern Europe. An excessive demand also at that time existed for clothing, due to the revival in trade, and the limited capacity of the shops induced the making of garments in homes and by contract. This is how, in all probability, the sweating system received its first impulse. The wholesale manufacture and selling of clothing was then in its infancy. England, Ireland, France, and Germany followed the undertaking, and with it came the sweat shop to the large cities having favorable surroundings for its development.

In Europe the excess of ready-made over custom work is not so large as in this country, and although considerable custom work is made in homes, very little outside help is employed. This distinction is important. Merely working at home on some article of manufacture is not in itself so objectionable. The combination of living apartment and

factory and the employment of outsiders therein constitute the detrimental features which in time become a menace to the community. Much has been done by modern medical science and sanitation to prevent the spread of disease, but, paradoxical as it may seem, the sweat shop as a source of disease in our great centers of population has developed at the same time.

In order to fully comprehend this subject, it is necessary to know the extent and status of the industries in which the sweating evil prevails. Although the sweating system exists in a number of occupations, it is the garment-making industry (comprising men's clothing, ladies' cloak and suit, undergarment, and shirt-making branches) that has given it its real significance. The manufacture of clothing and cloaks at wholesale is the most concentrated of all the garment-making branches, and is confined mainly to the following large cities in the order of their rank, viz: New York and vicinity (including Brooklyn and Newark), Chicago, Philadelphia, Rochester, Baltimore, Boston, Cincinnati, Syracuse, Cleveland, St. Louis, Utica, and Milwaukee. One hundred thousand people, in round numbers, are engaged in this industry in these cities, of whom fully 40,000 are in the vicinity of New York City. By including the shirt and undergarment branches, there are at least 60,000 persons employed at garment making in New York and vicinity, and about 70 per cent of these work in small shops and on contract work. In the ladies' cloak and suit trade the seasons of work are short, and work is usually rushed. The frequent interruptions caused by strikes in this branch have induced many of the wholesale firms to conduct large shops of their own. This is considered to be an improvement.

The clothing and cloak cutters and trimmers number about 8,000, and are credited with being the most intelligent and skilled workmen in the trade. They are employed directly by the firms, usually on the premises, and their condition is in marked contrast to that of the other branches. The hours of labor are nine per day, with the exception of a half holiday on Saturdays during five months. In Chicago, however, the hours of labor are eight per day. The standard wages are from $15 to $24 per week, but the usual rate is $20 per week. This is an indication of the difference between direct employment and indirect contract work. When the latter is undertaken, the middleman as contractor becomes a factor and his profits must be taken from wages. Of course, with subcontracting wages must be reduced still more; so the worker suffers at every appearance of the contractor or subcontractor.

Conditions of labor as degrading, perhaps, as those of the sweat shop exist in many industries, but no class of laborers is so desperately situated, owing to the difficulty of introducing reforms in the numerous small shops abounding in the dark corners of the great cities, the helplessness of the victims, and the ignorant tenacity with which they cling to their tasks.

There are many model shops in which garments are made, having all the latest appliances for the comfort and health of the employees, but

these are exceptions and are mainly due to the generosity and philanthropic motives of the employers or to special business tact and able management. Even the contract method of manufacturing is not in itself injurious so long as such work is carried on in large, healthy shops; but it is the intensifying of competition through this means and the opportunities afforded for petty contractors to successfully compete that make the contract system so disadvantageous.

The petty contractor has made possible the sweating evil, and he is inseparable from it. As little capital and not much general knowledge of the trade are required to become a contractor, almost any ordinary workman can enter the field and compete with the others on even ground. This soon results in such keen competition between the contractors for the opportunity to obtain work that prices are reduced to a ruinous figure.

It is often asked, Why do not the wholesale manufacturers conduct their own large shops just as the cutting of the clothing is done? The manufacturers themselves frankly acknowledge that that would cost them more, even though the contractor makes a profit, and, besides, under the present system the trouble and expense of supervision are avoided. This really means that the wholesale merchant under the contract system shirks all responsibility for the conditions under which the employees work. Moreover, large shops would become more amenable to the State factory laws, and it would then be impossible to impose conditions of work so near the very life line.

This evil does not end here, however, for the contractors in turn subcontract the buttonhole making and finishing or "felling" to others. The "felling" is usually done by women at their homes, and very often by the whole family. Under such an arrangement it is easily seen that, aided by competition, prices and wages must continue to fall, and the work day to be lengthened until the limit of human endurance is reached. This limit, it seems, has been touched through the task system, an arrangement in the coat-making branch by which the contractor and the employees engage in a sort of cooperation, under which the contractor agrees with his employees to solicit work from the warehouses at a figure perhaps refused by another, provided they (a set of hands—usually four or five persons) are willing to do a certain task for a "day's work" for so much wages, even though it takes two or three days to do the specified "day's work." This "set," of course, can work as many hours in a day as it chooses, the only limit being that of endurance. Can a more objectionable plan be devised to obtain all the labor possible from a human being, whether man, woman, or child, the return for which is insufficient to maintain such a high pressure of energy? This is truly the very height of the sweating system. It seems as though its victims are grasping at a chance to preserve life for the time being at any cost. Piecework, which is the rule in the vest, pants, cloak, and shirt-making trades, has been brought, also, to the same level *through the contract* method of work. The above

description I have endeavored to give temperately and accurately, based upon careful observation. In fact, it would be difficult to exaggerate the unfavorable conditions of this system of labor and its vicious effects.

It is usually supposed that only cheap and common clothing is made in sweat shops and in homes, but such is not the fact, because cheap clothing is generally manufactured on a large scale so that the work can be systematically divided into many divisions—in some cases as many as 12—in order that it may be turned out very quickly; but the well-made garments require the long, continuous, and careful work that the workers at home or in small shops can give.

Factory legislation is now generally recognized as being of practical value and in accord with public policy. The factory acts of England have been largely copied in this country with marked success, and there is a decided tendency in all manufacturing States toward a greater efficiency in the factory inspection service, and the sanitary laws applied to workshops are being made more stringent. The strides made in such regulations, particularly in regard to minors and limitation of working hours, can best be realized when compared with the factory act of England, introduced in 1833, which prohibited children under 11 years of age from working longer than nine hours per day and obliged them to attend school two hours a day. What a story of wretchedness does this tell! The act was passed only after the most intense opposition notwithstanding the fearful disclosures made by a Parliamentary committee.

The limitations set for such protective legislation are confined at present to the enforcement of sanitary rules and rules for personal safety, the employment of minors, and the limitation of the hours of labor for women and children, and even for men in special vocations, but do not touch the contract system, wages, etc.; consequently this great gap can only be filled by the working people themselves through their own endeavors. Factory laws promote the cause of education by keeping children of school age from replacing adults in the factories and by providing rules framed in the interest of cleanliness and morality. All this must naturally have a wholesome tendency to increase self-respect, independence, and self-help, and to make a higher standard of living possible. Some manufacturers have pursued the short-sighted policy of opposing all factory restrictions which eventually proved to be of benefit to the fair manufacturer and the industry in general.

The possibility of contagion spreading through infected clothing coming from filthy shops has been widely discussed, and prominent physicians have acknowledged this to be an imminent danger. In the beginning of 1894 in Chicago a smallpox epidemic prevailed, and was confined mainly to the clothing districts. Two hundred and seventy-three different tenement houses were reported by the factory inspectors to be infected, and the health officials had only a small number of these *on their list.*

The sweat shop as a menace to health in addition to the other important considerations has led to radical special legislation aiming at the suppression of the sweat shop. New York, Massachusetts, Illinois, and Pennsylvania have thus grappled with the problem, and the results of the measures adopted by these States are watched with close interest by the lawmakers of the other States, and similar legislation is now being proposed in Ohio. The laws of Massachusetts, Illinois, and Pennsylvania are modeled after the following section of the New York factory laws of 1893:

No room or apartment in any tenement or dwelling house shall be used, except by the immediate members of the family living therein, for the manufacture of coats, vests, trousers, knee pants, overalls, cloaks, hats, caps, suspenders, jerseys, blouses, waists, waistbands, underwear, neckwear, furs, fur trimmings, fur garments, shirts, purses, feathers, artificial flowers, cigarettes, or cigars. No person, firm or corporation shall hire or employ any person to work in any room or apartment, in any rear building or building in the rear of a tenement or dwelling house at making in whole or in part any of the articles mentioned in this section, without first obtaining a written permit from the factory inspector, his assistant, or one of his deputies, stating the maximum number of persons allowed to be employed therein. Such permit shall not be granted until an inspection of such premises is made by the factory inspector, his assistant, or one of his deputies, and may be revoked by the factory inspector at any time the health of the community or of those so employed may require it. It shall be framed and posted in a conspicuous place in the room or in one of the rooms to which it relates. Every person, firm, company or corporation, contracting for the manufacture of any of the articles mentioned in this section, or giving out the incomplete material from which they or any of them are to be made, or to be wholly or partially finished, shall keep a written register of the names and addresses of all persons to whom such work is given to be made, or with whom they may have contracted to do the same. Such register shall be produced for inspection and a copy thereof shall be furnished on demand made by the factory inspector, his assistant, or one of his deputies. No person shall knowingly sell or expose for sale any of the articles mentioned in this section which were made in any dwelling house, tenement house, or building in the rear of a tenement or dwelling house, without the permit required by this section, and any officer appointed to enforce the provisions of this act who shall find any of such articles made in violation of the provisions hereof, shall conspicuously affix to such article a label containing the words "tenement made" printed in small pica capital letters on a tag not less than two inches in length; and such officer shall notify the person owning or alleged to own such articles that he so labeled them. No person shall remove or deface any tag or label so affixed. When any article mentioned in this section is found by the factory inspector, his assistant, or any of his deputies, to be made under unclean or unhealthy conditions, he shall affix thereto the label prescribed by this section, and shall immediately notify the local board of health whose duty it shall be to disinfect the same and thereupon remove such label.

The above provisions prohibit not only the manufacture of garments in living apartments (except by the immediate members of the family) and unsanitary *workshops, but* seek to interfere with the sale of such

goods by making it necessary to have a label attached and by forbidding their sale until properly disinfected and the label removed.

The Massachusetts law is similar in its provisions, but permits goods made in violation of the law to be sold upon the following conditions:

Whoever knowingly sells or exposes for sale any ready-made coats, vests, trousers or overcoats which have been made in a tenement house used as a workshop, as specified in section forty-four of this act, shall have affixed to each of said garments a tag or label not less than two inches in length and one inch in width, upon which shall be legibly printed or written the words "tenement made" and the name of the State and the town or city where said garment or garments were made.

No person shall sell or expose for sale any of said garments without a tag or label as aforesaid affixed thereto, nor sell or expose for sale any of said garments with a false or fraudulent tag or label, nor willfully remove, alter or destroy any such tag or label upon any of said garments when exposed for sale.

The special laws of Illinois dealing with the sweat shops are similar to those of New York and Massachusetts with the exception of the tag or label provision. The factory inspectors, however, are given the power to order garments destroyed when found infectious or containing vermin, and to prevent the employment in any dwelling room of any person not a member of the family living therein. These distinctions are of considerable importance, as in New York and Massachusetts the inspector is first obliged to make complaint to the board of health before goods can be so destroyed, and persons can only be prohibited from being employed in dwelling rooms through process of law.

Pennsylvania last year adopted a special sweat-shop law worded similarly to the New York law, with the exception that it omits the tag or label provision.

The age limitations for the employment of children in these four States are: New York, 14 years; Massachusetts, 13 years; Illinois, 14 years; Pennsylvania, 13 years.

The hours of labor in New York are limited to 60 per week for persons under 18 years of age and women under 21 years of age. No person under 18 years of age and no woman under 21 can be employed before 6 a. m. or after 9 p. m.

In Massachusetts the law limits the hours of work to 58 a week for minors under 18 years and women. No child under 14 years of age can be employed before 6 a. m. or after 7 p. m. In Illinois the law of 1893 provided that no female could be employed more than 8 hours in any day, but the supreme court, in November, 1894, declared this provision unconstitutional. In Pennsylvania minors must not be employed in any one day longer than 12 hours nor in any one week more than 60 hours.

Ohio, Maryland, and Missouri have not enacted any special remedial legislation, although the sweating evil flourishes in their territory. The general factory laws in Ohio are above the average standard. The age at which children may be employed in manufacturing establishments is 14 years, with the provision that children of more than 12 years of age may

be employed at nondangerous employment during the time they are not required by law to attend school. The number of inspectors employed in Ohio is 13, including a chief inspector and a clerk. The Missouri law makes no special provision for the age limitation of child labor, except that minors shall not be required to clean machinery, etc. Maryland does not employ a single inspector; it simply makes violations of the very lenient factory laws subject to prosecution by individuals and the health departments.

Sanitary rules at their best can deal only with one phase of the subject, and can not lessen the tasks of the sweating classes. Neither can the health officials, in addition to other duties, hope to maintain supervision over the evasive sweater. It is only by those who have made factory conditions, particularly in the tenement districts, a study that sanitary rules can be properly enforced and the spread of disease prevented. The evil is so extensive and so difficult to reach that the ordinary factory inspectors, whose duties are not alone to investigate the sweating evil, are plainly unable to cope with the abuses. Legislation preventing the employment of minors, restricting the hours of labor of women and children, and specifying the amount of air space required for each person employed all tends to make the sweat shops as such less profitable. All of the manufacturing States have legislated in this direction, but there is a most remarkable laxity in enforcing these laws or providing for their enforcement. A large, populous State has a force of factory inspectors not as large as the force required to police a city ward, and yet the duties of each inspector are as important and more arduous certainly than those of a policeman.

As the factory inspectors' work is still regarded as experimental, large and quick results are expected, and public criticism is based upon the impression made on the whole vast factory system of the State. To fully extirpate all the workshop evils, very careful and close inspection is required. Besides, the prosecutions for violations are made very troublesome, owing to the difficulty of obtaining sufficient evidence. The employees of a sweat shop, usually through intimidation and ignorant fear, when giving testimony endeavor to shield the employer, even where a flagrant infringement of the law is apparent. The ease with which a sweater can change his abode, thus necessitating a new inspection, is another great obstacle. As the tenement shop is the cheapest method of manufacturing, it is the fittest under the sharp competition which originated it, and consequently the tendency is irresistibly that way. The well-regulated clothing workshop, being at a disadvantage, often gives way to the combination of dwelling and workshop, which neither deserves the name of the one nor is suited to the other. Thus the factory inspectors are called upon to stem this tide—not alone to introduce reforms. To judge what really has been accomplished in this respect, we can only deal with New York, Massachusetts, Illinois, and Pennsylvania, the only States that have made a serious attempt at suppressing the sweat-shop evil.

The State of New York has 24 deputy inspectors (9 of whom are women), a chief, and an assistant to inspect the 65,840 factories in the State. Of these factories 25,400 are located in the vicinity of New York City, and the subfactory-inspection department of New York City has 14 inspectors attached (7 being women).

Massachusetts is better provided in this respect, having 26 inspectors for 26,923 factories.

Illinois has 11 inspectors (including 4 women and a chief) for 20,482 factories in the State.

In 1895 Pennsylvania had 20 deputy inspectors (including 4 women) for 39,339 factories.

From the forthcoming Tenth Annual Report of the Factory Inspectors of New York is taken the following list of prosecutions in New York City for violations of the law regulating the manufacture of clothing in tenement workshops during the year 1895:

PROSECUTIONS FOR VIOLATIONS OF THE LAW REGULATING THE MANUFACTURE OF CLOTHING IN TENEMENT WORKSHOPS, NEW YORK CITY, 1895.

Offense.	Cases.	Fines.
Working in tenement houses	46	$875
Employing children under 14 years of age	20	250
Having unclean water-closets	9	225
Having insufficient water-closets	5	140
Employing children without certificates	3	60
Working in rear buildings without permit	2	50
Employing illiterate children	1	30
Overcrowding	1	20
Obscene writing in water-closets	1	20
Total	88	1,670

The report for the State for 1894 shows that 10,425 notifications were issued requiring changes to be made in or about the places visited, of which the following represent the most important:

Factories ordered to stop overworking minors	188
Children under 14 years of age ordered discharged	182
Illiterate children under 16 years of age ordered discharged	238
Elevators and hoistways ordered guarded	587
Fire escapes ordered erected	262
Machines ordered protected	1,320
Separate toilet rooms for women ordered	1,148
Factories ordered renovated	658
Running water for workrooms ordered provided	75
Buildings condemned as unsafe	52
Ordered to cease making clothing in sweat shops	718
Overcrowding ordered stopped	53
Better ventilation ordered	118

Since the enactment of the law prohibiting manufacturing in homes other than by members of the family, in 1892, and up to January, 1894 (one year and a half), there were erected 59 factory buildings on sites formerly occupied by tenements swarming with people engaged in the

manufacture of clothing. These new factory buildings were built expressly to accommodate the clothing trade under the new conditions. They contain 483 separate shops, and have legal space for 15,477 work people. Besides this, 371 tenements, formerly used for both working and living purposes, were cleared entirely of workers not members of the families living therein, and these tenements are now used for domestic purposes only. There were also 85 tenement buildings, which were cleared of residents and remodeled into shop buildings. These changes improved the condition of 17,147 persons who manufacture clothing in New York City. This was during the "hard times," when the trade was at a standstill, and the number of the persons given as having had their conditions improved is very low. The figures were obtained by actual count. But this relates only to their sanitary welfare, and has nothing to do with the serious question of their ill-paid labor.

The factory-inspection department of Massachusetts reported for 1895 the inspection of 5,069 manufacturing, mechanical, and mercantile establishments in which 13,892 children were employed (302 of these being between 13 and 14 years of age), and 232,317 adult males and 157,122 adult females, making a total of 403,331. Orders were issued to 2,905 workshops.

The Pennsylvania inspection department reports the following work done from December 1, 1893, to November 30, 1894:

Deputy inspectors on outside work	11
Inspections made	4,234
Males employed where inspections have been made	175,791
Females employed where inspections have been made	84,945
Persons between 13 and 16 years of age employed where inspections have been made	22,397
Children under 13 years of age found employed and discharged	21
Total employees in establishments that have been inspected	260,736
Sweat-shop inspections	648
Persons employed in sweat shops where inspections have been made	2,914
Orders given	2,516
Orders complied with	1,480

The Illinois report for the year 1894 shows by statistical tables the inspection of 3,440 factories and workshops, employing 97,600 men, 24,335 women, and 8,130 children, a total of 130,065 employees. In 1893 there were inspected 2,362 factories and workshops, employing 52,480 men, 17,288 women, and 6,456 children, a total of 76,224 employees. This shows an increase of 1,078 factories and workshops inspected, employing 45,120 men, 7,047 women, and 1,674 children more than in 1893. Of the 3,440 places inspected in 1894, 1,437 were sweat shops, employing 4,461 men, 5,921 women, and 721 children, an increase over 1893 of 733 shops, 2,250 men, 2,304 women, and 121 children.

The number 3,440 does not indicate the number of inspections made, because some places have been inspected monthly and others semi-

monthly. On the other hand, no account is made in the tables of the many places visited but not found working at any time during the year.

The above summaries, taken from the factory inspectors' annual reports, show much salutary work being done. Each one of the cases enumerated is tabulated and separately described in voluminous books indicating painstaking methods in the compiling of facts and the enforcement of the laws. Each prosecution in addition serves as an object lesson to other violators who take for granted that such laws exist only to be ignored. It is evident that if factory inspection was extended and the force of inspectors increased commensurate with the vast importance of the work, many of the detrimental features of the workshops would be removed, children of school age would be replaced by adults in the factories, reasonable hours of labor would prevail, and the health of the workers and of the public would be protected and further reforms through the employees themselves would thus be rendered easier.

The lack of uniformity in the factory laws of the different States interferes very seriously with the efficiency of the laws enacted; and as an inducement is given for sweaters to remove to States where more leniency exists, sweat shops are thus spreading to localities where they were never known. As a means of securing uniform legislation throughout the country, the inspectors of thirteen States and two provinces of Canada have formed the International Association of Factory Inspectors, which has held nine annual conventions. In matters of factory legislation their opinions based upon expert knowledge are of much consequence.

At the meeting of this association in Chicago, September, 1893, the following resolution in reference to the restrictions of the hours of labor was adopted:

Recognizing the inequality of the existing laws regulating the employment of women and minors in the different States and Territories, and with a view of bringing into effect more uniformity in the same, which would be just and profitable to all engaged in industrial pursuits; first, by placing the employers in the different States on an equal basis of competition so far as hours of labor are concerned, and by affording to the employed the same protection from the evils which follow the overworking of women and children, wherever practiced; therefore we recommend the adoption by the several States of laws regulating the hours of labor of women and minors to 48 per week.

The State of Illinois subsequently adopted the eight-hour law in substance. An appeal was made to the supreme court, and in November, 1894, the part pertaining to women was declared unconstitutional, on the grounds that adult women were not wards of the State, that the law gave special privileges to one sex as against the other, and was an interference with the right of women to work longer than eight hours if they choose or to contract for or dispose of their work. This decision naturally handicaps further legislation in this direction.

The opponents of factory legislation contend that this policy tends to drive manufacturers from States enacting such laws by handicapping and crippling industries in competition with the products of other States not subject to these restrictions. If, for argument's sake, it is admitted that such laws interfere with cheapness, surely the benefits accruing to the entire community by the prevention of injustice, by the obliteration of sweating dens, and the protection of the health of the people in general are worthy of greater consideration. As an answer, however, to the first proposition, it is only necessary to refer to the United States censuses of 1880 and 1890 to show that the State of New York has actually doubled its manufacturing resources and capacity, within that decade, notwithstanding the stringent factory laws adopted, in which New York has been a pioneer. In 1880 the census gives 42,739 factories, in 1890 65,840, and an increase of the capital invested from $514,246,575 to $1,130,161,195. The same relative increase is true of the other States having stricter factory legislation.

It is self-evident that the prosperity of a community depends upon the increased productive and consumptive power of the people, and that the impoverishment of a particular class of toilers is a disease of the body politic which must be cured by such remedies as are available.

While the community was enacting measures for the alleviation of the misery due to the sweat shop, and was seeking its suppression as a public menace, the operatives themselves, whose poverty seemed to have sapped their courage and mentality, became aroused, and after a strike lasting three weeks abolished the worst features of the sweating evil. This strike was akin to a revolution in its suddenness and sweep. It began in New York, Brooklyn, and Newark in September, 1894, and was continued in Boston and Baltimore. Similar disputes, with varying success, occurred in Philadelphia, Rochester, Chicago, and St. Louis.

Prior to this movement organization among the tailors existed and large strikes took place, but all of a spasmodic nature. Some of these contests were announced as victories, but the unions were unable to maintain the advantages gained and suffered a relapse. But the rebellious spirit was only dormant, waiting favorable opportunities.

In April, 1891, in New York City, the foundation for a successful movement was laid through the formation of a national union comprising all branches of the industry, known as the United Garment Workers of America. The clothing cutters, who had a long trade-union experience, and were more favorably circumstanced, identified themselves with this national movement, took an active interest, and thus gave permanency to the organization.

A vigorous agitation was begun for the abolition of the sweating system, but met with no immediate visible results. The industrial prostration of 1893 and 1894 set in, and during that period the tailors were reduced to a condition bordering on pauperism. Special relief

works were started in the large clothing cities to prevent actual starvation. The task system sets no limitation, however, and the tasks were so increased that the amount of work exacted from the few employed further deprived others of work. When the revival in the trade came, in August and September, 1894, the tailors had learned to exist somehow without the task. The unions, which acted as relief bureaus during the depression, issued a manifesto for the overthrow of the task system and ordered a general strike. About 16,000 coat makers in 950 shops in New York, Brooklyn, and Newark responded. The competing contractors, who were used by the manufacturers as implements to increase the daily tasks, formed an association, but granted the demands and signed individual agreements with the unions after the third week. The terms granted provided for weekly work on a basis of ten hours per day; a minimum rate of wages of from $9 to $15 per week, according to the branch of work; no overtime to be permitted, and the employment of members of the union. So fearful were the now emancipated operatives that the task system would be again returned, that every contractor was obliged to furnish a real-estate bond as security that all the terms of the agreement would be lived up to. The legal standing of the agreements and bonds obtained are now under consideration by the higher courts of New York through several test cases brought against employers for violation of agreement.

The improvements made through these strikes can not be solely estimated by the great material gain. Hope and ambition have taken the place of the characteristic supineness of the clothing operative. Since the first strike the agreements were renewed, with additions, through another struggle the following year, and a few months ago the organized contractors caused a lockout which was successfully resisted. The other branches of the tailoring trade, although still working under the piecework system, accomplished corresponding results. It is estimated that 40,000 tailors, about 70 per cent of the total number affected by the sweating system in the different cities, are working in shops conducted under similar conditions, and in Boston the work day is but nine hours. The hours of labor have been thus shortened by from two to five hours per day, and this has had the noticeable effect of prolonging the working seasons and giving steadier employment. A number of small contractors were obliged to give up their shops, owing to the refusal of the unions to make terms with them. It is remarkable that the wholesale manufacturing trade has not suffered through the increased cost of production because of the uniformity of the increase, and the manufacturers have now expressed themselves favorable to the change, which has removed much of the odium from the trade and raised the method of manufacturing to a higher plane. There are still many small shops hidden away in the teeming tenements in which the sweating system exists, and these are most difficult to reach, but the improved conditions obtained in the

trade naturally have made an impression even there. While the State factory laws prohibit manufacturing in rooms not separate from living apartments, work still can be done by a family in the homes as long as outside help is not employed. While this is very detrimental, still it is limited.

It is specially worthy of note that the marked improvement made in the condition of the clothing workers during the past two years has been accomplished notwithstanding the comparative depression existing, the trade not having fully recovered from the general industrial prostration which was at its worst between two and three years ago. The number of unemployed in the trade has usually been large. There was an improvement about a year ago, but a relapse has taken place recently which has enabled the manufacturers to make encroachments upon the standard rate of wages, hours of labor, etc., established and maintained by the unions. This caused a very dissatisfied and restless spirit. The clothing manufacturers in the different cities formed associations to oppose the unions. This led to the recent large general strikes in Baltimore, Chicago, and Cincinnati which began at the end of February of this year and involved about 11,000 persons, including all the branches of the trade, both cutters and tailors, of which number 7,400 were in Chicago, 3,300 in Baltimore, and 300 in Cincinnati. The manufacturers in these three important clothing cities acted concertedly and the contests were stubborn and prolonged. The manufacturers naturally held the advantage, owing to the extreme dullness in the trade.

The trouble originated with the cutters in each city. In Baltimore the tailors stopped work mainly in support of the cutters, who demanded recognition and the usual minimum rate of wages. The strike was abandoned after five weeks. In Cincinnati the cutters' union ordered a strike in the shop of one firm and the other manufacturers resented by locking out all the others. The unions thereupon declared for the eight-hour workday. After seven weeks the cutters returned to work individually after the manufacturers rescinded the resolution not to employ members of the union.

In Chicago the Manufacturers' Association precipitated the conflict with the Cutters' Union by declaring for the "merit system" instead of the minimum rate of wages, and the nine-hour workday in place of the eight hours observed for three years. The tailors also made issue with the contractors, were partially successful, and in shops employing about 2,300 persons enforced the ten-hour workday and minimum rate of wages in place of the "task" system. Ten firms, employing about 100 cutters out of 900 in the city, conceded the terms of the union, and at the end of the eighth week the others returned to work under the conditions stipulated by the employers.

While the results of these contests which involved so many persons are most unfavorable to the employee, this fact signifies only a check

to the many gains that have been made. The sweating system is being grappled with in all earnestness, and all facts plainly show that this detrimental system of labor is steadily being suppressed, both in this and in other countries. The reforms introduced in the tailor shops of this country helped to stir up the tailors and seamstresses of Germany, who, after immense strikes in the large cities in February last, succeeded in effecting a compromise through a board of conciliation, by which the manufacturers agreed to pay an increase of 12½ per cent, and to fix a list of minimum rates under which each of the various articles of clothing should not be given out either to contractors or workers. The contractors agreed to pay the workers the full amount of the increase. Manufacturers agreed not to deal with contractors who violated the above conditions. Wages were to be paid weekly. The workers' demand for the erection of special workshops was withdrawn. These concessions were granted to 34,000 persons.

Another factor used in the warfare waged against the sweating system is the influence of the public as purchasers. Quite a number of large manufacturers have been obliged to withdraw work sent to sweating contractors, through the systematic appeals made by unions of the trade upon members of other unions and sympathizers to withhold patronage from dealers handling or keeping such goods on sale. Usually a retail clothier would cease dealing with an objectionable manufacturer rather than incur the opposition of patrons. In line with this method the union label has been of service. It is designed to enable sympathizers to distinguish and give preference to goods guaranteed to be made under union, fair, and sanitary conditions. A number of large manufacturers have adopted this label, which has been actively agitated for during the past three years.

The substantial reform work being done in the clothing industry both by legislation and the trade unions is doing much to correct the evils resulting from the laissez-faire policy which regarded all such interferences with free competition, so called, as pernicious and despotic. To-day the principle of factory legislation is seldom disputed, but for nearly a century, ever since the advent of the factory system in England, there has been a most vigorous and bitter contest waged between the advocates and the opponents of factory laws. Some of the ablest economists and legislators were arrayed against what was called the pernicious interference with supply and demand, even in the face of the degrading conditions existing in the workshops and the mines. But surely and steadily the humanizing influences inspired by Shaftsbury gained the ascendency, and now such protective legislation as well as trade-union regulations are generally conceded to be beneficial, as being conducive to more equity in the dealings of mankind and therefore in accord with public policy.

Social theories and policies, as in physics, depend upon experimental results for their value, and our perfected method of gathering data *does much to* enable us to form more correct conclusions.

Our methods of production resemble so closely those of England that even the detrimental features are similar. In dealing with the important question of the sweating system, a comparison made with the sweating evil of England is therefore of value, and is applicable also to every country manufacturing on a large scale.

The British Parliament, through a select committee of the House of Lords, made a most searching investigation into the sweating system and its causes and effects, and the exhaustive report published in 1890 gives a graphic description of the extent of the evil. Most of the recommendations made by the committee have since been enacted into law. The following extracts are taken from that report:

Our inquiry embraced—

I. The means employed to take advantage of the necessities of the poorer and more helpless class of workers.

II. The conditions under which such workers live.

III. The causes that have conduced to the state of things disclosed.

IV. The remedies proposed.

Such having been the scope of our inquiry, and ample evidence having been brought before us on every matter comprised within its scope, we are of opinion that, although we can not assign an exact meaning to "sweating," the evils known by that name are shown in the pages of the report to be, (1) an unduly low rate of wages; (2) excessive hours of labor; (3) the insanitary state of the houses in which the work is carried on.

These evils can hardly be exaggerated. The earnings of the lowest class of workers are barely sufficient to sustain existence. The hours of labor are such as to make the lives of the workers periods of almost ceaseless toil, hard and unlovely to the last degree.

The sanitary conditions under which the work is conducted are not only injurious to the health of the persons employed, but are dangerous to the public, especially in the case of the trades concerned in making clothes, as infectious diseases are spread by the sale of garments made in rooms inhabited by persons suffering from smallpox and other diseases.

We make the above statements on evidence of the truth of which we are fully satisfied, and we feel bound to express our admiration of the courage with which the sufferers endure their lot, of the absence of any desire to excite pity by exaggeration, and of the almost unbounded charity they display toward each other in endeavoring by gifts of food and other kindnesses to alleviate any distress for the time being greater than their own.

As a rule, however, it must be remembered that the observations made with respect to sweating apply, in the main, to unskilled or only partially skilled workers, as the thoroughly skilled workers can almost always obtain adequate wages.

When we come to consider the causes of and the remedies for the evils attending the conditions of labor which go under the name of sweating, we are immediately involved in a labyrinth of difficulties. First, we are told that the introduction of subcontractors, or middlemen, is the cause of the misery. Undoubtedly, it appears to us that employers are regardless of the moral obligations which attach to capital when they take contracts to supply articles and know nothing of the condition of the workers by whom such articles are made, leaving to a subcontractor the *duty of selecting* the workers, and giving him

by way of compensation a portion of the profit. But it seems to us that the middleman is the consequence, not the cause of the evil; the instrument, not the hand which gives motion to the instrument, which does the mischief.

Machinery, by increasing the subdivision of labor, and consequently affording great opportunities for the introduction of unskilled labor, is also charged with being the cause of sweating. The answer to this charge seems to be, that in some of the largest clothing and other factories in which labor is admitted to be carried on under favorable conditions to the workers, machinery and subdivision of labor to the greatest possible extent, are found in every department of the factory.

With more truth it may be said that the inefficiency of many of the lower class of workers, early marriages and the tendency of the residuum of the population in large towns to form a helpless community, together with a low standard of life and the excessive supply of unskilled labor, are the chief factors in producing sweating. Moreover, a large supply of cheap female labor is available in consequence of the fact that married women working at unskilled labor in their homes, in the intervals of attendance on their domestic duties and not wholly supporting themselves, can afford to work at what would be starvation wages to unmarried women. Such being the conditions of the labor market, abundant materials exist to supply an unscrupulous employer with his wretched dependent workers.

The most important question is whether any remedy can be found for this unhappy state of a portion of the laboring class. With respect to the low wages and excessive hours of labor, we think that good may be effected by cooperative societies and combination amongst the workers. We are aware that home workers form a great obstacle in the way of combination, inasmuch as they can not readily be brought to combine for the purpose of raising wages. To remove this obstacle we have been urged to recommend the prohibition by legislation of working at home; but we think such a measure would be arbitrary and oppressive.

We now proceed to make recommendations in respect of the evils, which appear to us, under existing circumstances, to require immediate Parliamentary interference.

Under the factory law work places for the purposes of sanitation are divided into three classes—(1) factories; (2) workshops; (3) domestic workshops.

We are of opinion that all work places included under the above descriptions should be required to be kept in a cleanly state, to be limewashed or washed throughout at stated times, to be kept free from noxious effluvia, and not to be overcrowded; in other words to be treated for sanitary purposes as factories are treated under the factory law.

We are also of the opinion that as respects administration an adequate number of inspectors should be appointed to enforce a due observance of the law. It has been suggested that the inspector should be assisted by workmen having practical knowledge of the trades inspected, and paid only the wages of artisans, but we doubt whether the disadvantages arising from the division of responsibility would not outweigh any advantages to be derived from their technical knowledge.

We think that inspectors should have power to enter all work places within their jurisdiction at reasonable times without a warrant.

We consider that the establishment of county councils provides in every county a body capable of being trusted with the superintendence of the inspection by sanitary authorities and of making such inspection efficient.

To carry into effect the foregoing recommendations, amendments will be required of the factory and workshop act, 1878, the public health act, 1875, and the local government act, 1888.

We are of the opinion that greater facilities should be given to factory inspectors for inspecting the work places within their jurisdiction by registration of owners, or by requiring notice to be given to the inspectors of the establishment of new work places and the discontinuance of old. Some means should also be devised for enabling sanitary inspectors to discover readily the names and addresses of the owners of insanitary work places and houses.

We think it a disadvantage that different Departments of the Government should be concerned with matters relating to the labor question. The factory inspectors are appointed by and under the control of the home office. The board of trade supplies the public, through its labor correspondent, with information as to the conditions of labor and the state of the industrial classes, and requires for that purpose the aid and cooperation of the factory inspectors. The local government board have a medical department, which, for the purpose of promoting hygiene, ought to be in constant communication with the factory inspectors.

We suggest that it would be advisable to bring the officers employed in the above-mentioned functions into closer relations with each other by placing them under the control of one department, or otherwise providing them with a unity of administration.

We have received considerable evidence attributing, to the disuse of the apprenticeship system, the incompleteness of the education of the workman. The remedies suggested are, on the one hand, a renewal of the apprenticeship system; and, on the other, the promotion of a larger system of technical education. We think that the encouragement of technical education for all classes of artisans is more likely to prove an efficient remedy than a recurrence to the old system of apprenticeship.

We are of the opinion that it is incumbent on all Departments of the Government and on municipal and other public bodies to take care that in placing their contracts they are satisfied that the workmen by whom the contract is to be worked out are paid proper wages. We recommend this course not only in the interest of the workman, but also in the belief that it will insure to the public a corresponding advantage in the excellence of the work. This recommendation may be effected by requiring the contractor to show the scale of wages which he proposes to pay, and, supposing such scale to be satisfactory, by having copies served on the workmen, or otherwise making known to them the rate of wages to be paid.

We can not conclude without expressing our earnest hope that the exposure of evils which have been brought to our notice will induce capitalists to pay closer attention to the conditions under which the labor which supplies them with goods is conducted, and that the public will withhold their custom from traders who are known to conduct their business on a system which regards neither the welfare of the workman nor the quality of the work produced.

The following is a brief summary of some of the provisions of the factory and workshop acts from 1878 to 1895, enacted by Parliament, which particularly apply to sweat shops:

Every factory, workshop, or laundry must be kept clean, well ventilated, free from bad smells and overcrowding, and at a reasonable temperature. Not less than 250 cubic feet of space (400 in overtime) must be allowed for each *worker*.

In all factories and steam laundries the duty of seeing that these provisions are carried out belongs to the factory inspector, in workshops and hand laundries, to the local sanitary authority.

The working hours are variously limited for children, young persons, and women. A "child" means a person between 11 and 14 years of age; a "young person" means a person between 14 and 18 years of age; a "woman" means a woman of 18 years of age and upward. The period of employment for young persons and women in factories and workshops is limited to the hours between 6 a. m. and 6 p. m., or 7 a. m. and 7 p. m., or 8 a. m. and 8 p. m. In textile factories two hours must be allowed for meals (one of them before 3 p. m.), and work must not be carried on for more than two and one-half hours without an interval of one-half hour for meals. In nontextile factories and workshops one and one-half hours must be allowed for meals (one of them before 3 p. m.), and work must not be carried on for more than five hours without an interval of one-half hour for meals. In textile factories when work begins on Saturdays at 6 a. m. manufacturing processes must cease at 1 p. m. if not less than one hour is allowed for meals. If less than one hour is allowed for meals, manufacturing processes must cease at 12.30 p. m. When work begins at 7 a. m. manufacturing processes must cease at 1.30 p. m. In nontextile factories and workshops the hours of employment on Saturdays may be between 6 a. m. and 2 p. m., or 7 a. m. and 3 p. m., or 8 a. m. and 4 p. m. In every case an interval of not less than one-half hour must be allowed for meals.

Children employed in factories and workshops may only work half-time, that is, either in the morning or afternoon or on alternate days.

Special provisions with regard to employment on Saturday and Sunday are made for young persons and women of the Jewish religion.

Employment outside a factory or workshop, in the business of that factory or workshop, before or after working on the same day inside, is forbidden for children. It is also forbidden for young persons and women who are employed inside both before and after the dinner hour. Work given out, or allowed to be taken out, is treated as employment on that day.

The occupier of a factory or workshop or laundry may not, to his knowledge, employ a woman within four weeks after she has given birth to a child.

Notice must be sent to the inspector within one month of the time when work is begun in any factory or workshop.

All occupiers of existing workshops must, before the expiration of twelve months from January 1, 1896 (unless they have already done so), send their names and addresses, and particulars of the work carried on in such workshops, to the inspector.

On any evening when it is intended that women shall work overtime notice must be sent to the inspector before 8 p. m.

An abstract of the factory and workshop acts, with the names and addresses of the inspector and surgeon of the district, the hours of employment and times of meals, also a notice stating the total cubic space and the number of persons who may be employed, must be affixed in every factory, workshop, and laundry in such a position as to be easily read. Occupiers of "domestic workshops" are not required to send or affix notices.

The occupier of every factory and workshop, and every contractor employed by such occupier, shall, if the trade is included in the order of the home secretary, keep lists of the names and addresses of all persons employed as outworkers, such lists to be open to inspection

by an officer of a sanitary authority, or any inspector under the act; also, he shall on or before the 1st of March and the 1st of September in each year, send such lists to the inspector of the district. This regulation includes as a "workshop" any place from which wearing apparel is given out to be made.

Any person obstructing or delaying an inspector in the performance of his duty is subject to a penalty of not more than £5 ($24.33), or when the offense is committed at night £20 ($97.33). It is deemed that an inspector is obstructed if a child, young person, or woman is concealed or prevented from appearing before an inspector, or if any person fails to comply with a requisition of the inspector made in accordance with the act.

For not complying with any of the foregoing provisions the act has fixed penalties which may be inflicted when a conviction is obtained.

The English factory laws have the advantage of being applied uniformly throughout the country, while in the United States the efficiency of the laws are much interfered with by the separate legislation enacted in each State, but there is a tendency in the manufacturing States to adopt more harmonious laws in this respect, and while they compare favorably with the English factory acts they are not so exacting. As the population of Great Britain is generally more homogeneous and settled, the industrial conditions not being so changeable, the enforcement of the factory laws are thus rendered easier. In dealing with the sweating evil, however, the same conditions are apparent. In the very large cities there is a large, helpless, dependent population, and much overcrowding, caused mainly through immigration and the tendency of the rural population to migrate to the large cities. Englishmen are thus forced in turn to emigrate to other countries.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

MASSACHUSETTS.

Twenty-fifth Annual Report of the Bureau of Statistics of Labor. March, 1895. Horace G. Wadlin, Chief. xvii, 337 pp.

This report treats of the following subjects: Compensation in certain occupations of graduates of colleges for women, 47 pages; the distribution of wealth, 254 pages; labor chronology, 33 pages.

COMPENSATION IN CERTAIN OCCUPATIONS OF GRADUATES OF COLLEGES FOR WOMEN.—This investigation was not confined to graduates of colleges, and is more accurately described as "The compensation in certain occupations of women who have received college or other special training." The presentation is based upon an investigation conducted by a committee of the Association of Collegiate Alumnæ.

There were 451 schedules received from women employees and 104 from employers of women. These returns were distributed as follows: Massachusetts, 59; Minnesota, 55; Connecticut, 44; Rhode Island, 40; California, 61; New York, 90; Indiana, 39; Illinois, 14; and the remaining 153 from various other States.

Of the schedules received from employees, 437 contained information concerning occupation, residence, and conjugal condition, and the totals are summarized as follows:

RESIDENCE AND CONJUGAL CONDITION OF WOMEN WHO HAVE RECEIVED COLLEGE OR OTHER SPECIAL TRAINING.

Conjugal condition.	Residence.		Total.
	At home.	Elsewhere.	
Single	209	180	389
Married	24	4	28
Widowed	11	9	20
Total	244	193	437

Seventy-eight of the women from whom schedules were received failed to state their age. The others are classified according to age periods, and 313 were 20 but under 40 years of age.

The following statement gives the totals of the answers to questions concerning occupation and means of support:

OCCUPATION AND MEANS OF SUPPORT OF WOMEN WHO HAVE RECEIVED COLLEGE OR OTHER SPECIAL TRAINING.

Question.	Answer.		Not answered.	Total.
	Yes.	No.		
Have you any remunerative occupation besides your main work?	338	74	39	451
Are you occupied with domestic or other outside cares?	117	289	45	451
Do your wages supply your entire support?	350	43	58	451

Of the whole number of women reporting, 6 were paid less than $25 per month; 88, $25 and under $50; 144, $50 and under $75; 88, $75 and under $100; 73, $100 and under $200; 2, $200 and under $300, and 2 a salary in excess of $300 per month. Forty-eight failed to answer the questions concerning compensation.

One hundred and fifty reports stated that men received more pay than women for the same grade of work, 95 reported the same pay for women and men, while 5 reported that men received less pay than women, and 201 failed to answer the question.

It is alleged as one of the reasons for paying women less than men in similar employments that a man is called upon to support others besides himself, while, as a rule, women in industry do not aid in the support of others. Of the 379 women who answered the question on this subject 157, or 41.42 per cent, aided in the support of others. Another reason given is that women do not remain continuously in one employment. Of the 333 who answered the question on this subject 214 had been in but 1 employment, their average term of service being seven years and eight months, 88 had been in 2 employments, 19 in 3, 9 in 4, 2 in 5, and 1 in 8 employments since beginning work.

There were 4,697 males and 3,097 females, a total of 7,794 persons employed by the employers who made returns. Ninety employers replied to the question, "Are the services of men and women equally valuable to you?" Of this number 46 answered yes, 29 no, and 7 indefinitely, while 8 stated that for some work they were as desirable and for other work they were not.

Out of 67 replies, 29 indicate that the fact of supply and demand, or competition, is one reason for the difference in compensation of the sexes, while 21 consider physical and mental differences, or differences in general ability, to be the real reason. In 17 replies no other reason than custom is offered.

The statistics summarized in the above statements are shown in the report by occupations, so that the conditions prevailing in each industry can be determined, and are followed by condensed text statements of the opinions of both employees and employers.

THE DISTRIBUTION OF WEALTH.—Of the 254 pages devoted to this subject, 218 contain statistical tables. The information presented is intended to form part of a general inquiry into wealth distribution, and in fact simply covers the initial stage of a projected investigation upon that subject. The statistics were obtained from the records of the probate courts of the State and cover four periods of three years each, viz, 1829 to 1831, 1859 to 1861, 1879 to 1881, and 1889 to 1891.

The probate courts of the State administer substantially all the estates of persons who die possessing property worth taking account of. The estates of which no trace can be obtained in these courts are almost entirely very small. In a number of instances no inventory is filed when the estate is admitted to probate. For this reason it is impossi-

ble to determine the total value of all property admitted to probate, and to that extent the value of the statistics is limited. The following statement indicates exactly how far this limitation affects the results:

PROBATES FILED WITH AND WITHOUT INVENTORIES, BY SELECTED PERIODS.

Period.	Inventory filed.		Inventory not filed.		Total.
	Number.	Per cent.	Number.	Per cent.	
1829 to 1831 (3 years)	3,698	76.95	1,108	23.05	4,806
1859 to 1861 (3 years)	6,922	70.13	2,948	29.87	9,870
1879 to 1881 (3 years)	11,142	65.56	5,854	34.44	16,996
1889 to 1891 (3 years)	14,608	57.97	10,592	42.03	25,200
Total	36,370	63.95	20,502	36.05	56,872

For the State as a whole, and for each county except Dukes, it appears that in recent years the number of probates registered without inventories has considerably increased, and in the comparison of the values for different periods this should be borne in mind. It is probably true that the estates unaccompanied by inventories are, as a rule, larger than those for which inventories are filed. In the following statements only inventoried probates are referred to, and the total for the State by periods considered. The statistics are shown in the report by counties for the different years.

The total number and value of probates, classified according to the sex of the deceased, are shown in the following statement:

NUMBER AND VALUE OF INVENTORIED ESTATES PROBATED DURING EACH SELECTED PERIOD, BY SEX OF DECEASED.

Period.	Males.			Females.			Total.		
	Number.	Value.		Number.	Value.		Number.	Value.	
		Total.	Average.		Total.	Average.		Total.	Average.
1829 to 1831	3,102	$13,500,099	$4,352	596	$994,008	$1,668	3,698	$14,494,107	$3,919
1859 to 1861	5,103	45,847,981	8,985	1,819	7,408,813	4,073	6,922	53,256,794	7,694
1879 to 1881	7,030	114,747,943	16,323	4,112	22,626,316	5,503	11,142	137,374,259	12,329
1889 to 1891	8,349	114,032,780	13,658	6,259	41,526,008	6,635	14,608	155,558,788	10,649
Total	23,584	288,128,803	12,217	12,786	72,555,145	5,675	36,370	360,683,948	9,917

Out of the 36,370 probates represented by inventories, 14,310 were testate and 22,060 were intestate. In the first period considered, 74.34 per cent of the probates were intestate; the percentages in the other three periods being, respectively, as follows: 64.07, 57.06, and 58.31. The larger number of the estates were distributed without disposition by will—that is, to heirs in accordance with the provisions of the statutes—but the tendency to dispose of estates by will appears to increase.

Of the total number of estates considered, 35,304, or 97.07 per cent, were solvent, and 1,066, or 2.93 per cent, were insolvent. In the three-year period ending with 1831, 8.14 per cent of the probates were insolvent, the percentages for the other periods being 3.77, 2.52, and 1.53, respectively.

The inventoried probates are classified in the following statement with respect to the value of real and personal estate:

NUMBER AND VALUE OF INVENTORIED REAL AND PERSONAL ESTATES PROBATED, BY SELECTED PERIODS.

Period.	Real estate.			Personal estate.		
	Number.	Value.		Number.	Value.	
		Total.	Average.		Total.	Average.
1829 to 1831 (3 years)	2,257	$7,059,947	$3,128	3,624	$7,434,160	$2,051
1859 to 1861 (3 years)	4,526	21,754,769	4,807	6,665	31,502,025	4,726
1879 to 1881 (3 years)	6,872	44,273,982	6,443	10,600	93,100,277	8,783
1889 to 1891 (3 years)	9,157	60,190,946	6,573	13,334	95,367,842	7,152
Total	22,812	133,279,644	5,843	34,223	227,404,304	6,645

The total property represented in all of the probates considered is presented in the following statement by classes. Within the classes shown, averages are given applicable to each class, estates of approximately the same value being averaged together. In order that the basis of this average may be clearly seen, the number of estates within each class is shown, with the aggregate value which these estates represent:

NUMBER AND VALUE OF INVENTORIED ESTATES PROBATED DURING FOUR SELECTED PERIODS, BY CLASSES.

Class.	Males.			Females.			Total.		
	Number.	Value.		Number.	Value.		Number.	Value.	
		Total.	Average.		Total.	Average.		Total.	Average.
Under $500	4,301	$950,182	$221	2,654	$655,193	$247	6,955	$1,605,375	$231
$500 but under $1,000	2,649	1,938,257	732	1,963	1,415,692	721	4,612	3,353,949	727
$1,000 but under $5,000	9,415	23,423,433	2,488	5,471	12,739,018	2,328	14,886	36,162,451	2,429
$5,000 but under $10,000	3,178	22,176,399	6,978	1,304	8,998,485	6,901	4,482	31,174,884	6,956
$10,000 but under $25,000	2,286	35,701,145	15,617	899	13,453,932	14,965	3,185	49,155,077	15,433
$25,000 but under $50,000	807	27,956,000	34,642	293	9,930,463	33,892	1,100	37,886,463	34,442
$50,000 but under $100,000	479	33,343,881	69,611	121	8,731,739	72,163	600	42,075,620	70,126
$100,000 but under $200,000	249	34,146,659	137,135	54	7,171,567	132,807	303	41,318,226	136,364
$200,000 but under $300,000	88	21,314,303	242,208	12	3,024,924	252,077	100	24,339,227	243,392
$300,000 but under $400,000	43	14,787,010	343,884	10	3,321,683	332,168	53	18,108,693	341,673
$400,000 but under $500,000	25	11,266,481	450,659	2	841,173	420,587	27	12,107,654	448,432
$500,000 and over	64	61,125,053	955,079	3	2,271,276	757,092	67	63,396,329	946,214
Total	23,584	288,128,803	12,217	12,786	72,555,145	5,675	36,370	360,683,948	9,917

The report contains tables similar to the above for the different years, periods, and counties. For the three-year period ending with 1831 the average value of all inventoried probates was $3,919, but 1,431, or not quite half of the 3,698 estates considered, were valued at less than $500, and two estates were of greater value than $500,000. Comparing these figures with the three-year period ending with 1891, in which 14,608 estates with an average value of $10,649 were considered, it appears that 2,217, or about one-seventh, were valued at less than $500, while 30 estates exceeded $500,000 in value.

The average value of the real and personal estates of males and females, respectively, is shown for the classes given in the above statement by counties for each year and period covered by the report. The following statement reproduces the average values given for real and personal estates, respectively, by periods of years:

AVERAGE VALUE OF INVENTORIED REAL AND PERSONAL ESTATES PROBATED DURING EACH SELECTED PERIOD, BY CLASSES.

Class.	Real estate.				Personal estate.			
	1829 to 1831.	1859 to 1861.	1879 to 1881.	1889 to 1891.	1829 to 1831.	1859 to 1861.	1879 to 1881.	1889 to 1891.
Under $500	$220	$238	$233	$249	$182	$202	$210	$209
$500 but under $1,000	725	721	713	717	706	717	718	713
$1,000 but under $5,000	2,317	2,326	2,397	2,394	2,066	2,197	2,275	2,285
$5,000 but under $10,000	6,803	6,727	6,801	6,796	6,824	7,039	6,864	7,071
$10,000 but under $25,000	15,176	15,132	14,980	14,956	15,249	14,942	15,583	15,366
$25,000 but under $50,000	33,859	33,731	34,045	33,680	34,736	35,196	34,639	35,216
$50,000 but under $100,000	60,944	66,812	71,348	69,913	64,412	67,210	69,720	70,795
$100,000 but under $200,000	179,000	139,754	132,828	141,873	127,087	140,895	142,340	137,549
$200,000 but under $300,000	257,411	237,310	246,897	231,825	236,371	226,614	246,235	251,260
$300,000 but under $400,000	.....	341,779	348,690	339,503	.....	326,368	339,600	344,540
$400,000 but under $500,000	.....	.....	422,900	439,142	.....	449,316	437,330	437,344
$500,000 and over	.....	.....	845,939	758,063	595,194	866,225	1,141,034	713,294
Total	3,128	4,807	6,443	6,573	2,051	4,726	8,783	7,152

In the following statement real and personal property have been combined and similar averages shown, together with the number of probates in each class:

NUMBER AND AVERAGE VALUE OF INVENTORIED ESTATES PROBATED DURING SELECTED PERIODS, BY CLASSES.

Class.	1829 to 1831.		1859 to 1861.		1879 to 1881.		1889 to 1891.	
	Number.	Average value.	Number.	Average value.	Number.	Average value.	Number.	Average value.
Under $500	1,431	$186	1,485	$233	1,822	$245	2,217	$247
$500 but under $1,000	463	732	960	726	1,451	722	1,738	731
$1,000 but under $5,000	1,274	2,372	2,827	2,403	4,588	2,458	6,197	2,432
$5,000 but under $10,000	295	6,799	797	6,909	1,421	6,988	1,969	6,974
$10,000 but under $25,000	157	15,455	507	15,361	1,023	15,443	1,498	15,449
$25,000 but under $50,000	42	35,170	168	34,880	410	33,986	480	34,615
$50,000 but under $100,000	25	73,166	92	69,448	218	70,497	265	69,769
$100,000 but under $200,000	6	134,244	52	128,908	111	139,638	134	136,639
$200,000 but under $300,000	.....	.....	18	237,513	37	239,809	45	248,690
$300,000 but under $400,000	2	326,032	7	340,995	22	346,316	22	339,215
$400,000 but under $500,000	1	415,371	3	474,523	10	438,342	13	452,715
$500,000 and over	2	633,909	6	848,109	29	1,144,758	30	794,729
Total	3,698	3,919	6,922	7,694	11,142	12,329	14,608	10,649

If $50,000 is arbitrarily assumed as the dividing line between large and small estates, the following statement shows the number, value, and average value of probates above and below the line, respectively, for the different periods:

ESTATES PROBATED AND INVENTORIED ABOVE AND BELOW $50,000 IN VALUE, BY SELECTED PERIODS.

Period and classification.	Number.		Value.	
	Total.	Per cent.	Total.	Average.
1829 to 1831.				
Under $50,000	3,662	99.03	$9,536,245	$2,604
$50,000 and over	36	0.97	4,957,862	137,718
Total	3,698	100.00	14,494,107	3,919
1859 to 1861.				
Under $50,000	6,744	97.43	26,989,881	4,002
$50,000 and over	178	2.57	26,266,913	147,567
Total	6,922	100.00	53,256,794	7,694
1879 to 1881.				
Under $50,000	10,715	96.17	52,432,701	4,893
$50,000 and over	427	3.83	84,941,558	198,926
Total	11,142	100.00	137,374,259	12,329
1889 to 1891.				
Under $50,000	14,099	96.52	70,379,372	4,992
$50,000 and over	509	3.48	85,179,416	167,347
Total	14,608	100.00	155,558,788	10,649

The total amount represented by the estates above the $50,000 line in the three-year period ending with 1831 was only slightly in excess of one-half the total amount represented by the estates below the line.

In the three-year period ending with 1891, the value of the estates above the line was 54.76 per cent and the value of those below the line 45.24 per cent of the total value of all the estates considered.

The average holding in the estates below the line nearly doubled in the sixty years, while the number of persons who died worth less than $50,000 in the last period was nearly four times as great as in the first. The deceased owners of these estates represented one person in every 476 of the population in the period centering in 1890 and one in every 500 in the period centering in 1830. The average holding in the estates above the line has only exhibited a moderate increase, while the number of persons who died worth $50,000, or over, during the period centering in 1890, was more than 14 times as great as during the period centering in 1830. There was but one such inventoried estate probated in every 50,867 of the population in 1830, as against one in every 13,170 in 1890.

In order to enable a comparison of the probate statistics with those showing death, tables are introduced which give the total number of deaths by sex for the different counties for each year covered by the three periods from 1859 to 1891. The totals for the State are summarized as follows:

TOTAL DEATHS IN THE STATE, BY SELECTED PERIODS.

Period.	Deaths.
1859 to 1861 (3 years)	68,129
1879 to 1881 (3 years)	103,551
1889 to 1891 (3 years)	130,490
Total	302,170

Out of 68,129 deaths in the State during the three years 1859 to 1861 there were registered 6,744 inventoried estates below $50,000 in value, and 178 estates above. Out of 130,490 deaths during the three years 1889 to 1891 there were registered 14,099 inventoried estates below $50,000 in value, and 509 estates above.

LABOR CHRONOLOGY.—Under this title the resolutions and other actions of the labor organizations throughout the State on various subjects are grouped by dates.

MISSOURI.

Seventeenth Annual Report of the Bureau of Labor Statistics of the State of Missouri, being for the year ending November 1, 1895. Lee Meriwether, Commissioner. 354, v pp.

The following are the subjects treated in this report: Truck stores and "checks," 87 pages; machine versus hand labor, 5 pages; franchises and taxation, 4 pages; surplus products, 3 pages; Plasterers' Union, Kansas City, 18 pages; factory inspection, 48 pages; statistics of manufactures, 169 pages. An appendix of 12 pages contains a synopsis of Missouri laws relating to labor.

The presentation concerning truck stores and "checks," machine versus hand labor, franchises and taxation, and the Plasterers' Union of Kansas City, consists almost entirely of a textual discussion. The truck-store system is explained and remedies suggested. A brief account is given of an investigation made by the bureau in September, 1895, respecting the system as conducted in Missouri and the efforts made to have legal proceedings instituted against those who were violating the laws on this subject. The opinions of the courts in four leading cases, construing State laws relating to checks and truck stores, are given in full.

The displacement of labor by reason of the introduction of type-setting machines is treated. The evidence taken by the commissioner and his decision on investigating certain charges against the Plasterers' Union of Kansas City made by nonunion men, and as to the condition of the cigar business in that city, are given.

SURPLUS PRODUCTS.—The statistics showing the surplus agricultural products and other commodities shipped from each county during 1894 are presented in the form of a map, in which the quantities of the different products are printed in the respective counties. The totals for some of the principal products are given in the following statement:

SURPLUS PRODUCTS, 1894.

Product.	Quantity.	Counties marketing.
Apples.....bushels..	1,406,048	71
Butter.....pounds..	2,810,880	94
Canned goods.....do....	33,461,155	12
Cattle.....head..	864,823	107
Corn.....bushels..	10,960,732	91
Eggs.....dozen..	23,765,835	107
Flax.....pounds..	20,136,336	17
Flour.....barrels..	2,676,277	90
Hides.....pounds..	6,755,177	91
Hogs.....head..	2,596,077	107
Logs.....feet..	39,042,000	33
Lumber.....do....	296,130,430	97
Poultry.....pounds..	44,160,662	107
Wheat.....bushels..	12,203,502	92
Wool.....pounds..	2,503,660	86

FACTORY INSPECTION.—Statistics under this title are shown for 8 cities throughout the State, in which 600 establishments employing 15,877 men, 10,517 women, 1,431 boys over 12 and under 18 years of age, 1,590 girls over 14 and under 18, 10 boys under 12, and 88 girls under 14 were inspected. There were 554 establishments in operation on full time, 45 less than full time, and 1 closed entirely; 252 with full force, 179 with less than full force, and 169 part of the time with full force of employees. The statistics are shown in detail for each establishment inspected.

STATISTICS OF MANUFACTURES.—Schedules were sent to 3,000 manufacturers, and of this number 864 made returns sufficiently complete to be presented in the report. The statistics are shown in detail for each industry. The following statement gives the totals for St. Louis, Kansas City, the State exclusive of these cities, and the total:

STATISTICS OF MANUFACTURES, 1895.

Items.	St. Louis.	Kansas City.	State, exclusive of the two cities.	Total for State.
Corporations	283	40	59	382
Private firms	297	69	116	482
Total	580	109	175	864
Capital invested	$64,539,206	$4,845,100	$6,233,170	$75,617,476
Value of buildings and grounds	$28,034,990	$2,882,296	$1,857,322	$32,774,608
Value of machinery	$10,978,386	$1,285,408	$1,582,894	$13,846,688
Cost of materials	$46,173,357	$10,217,655	$5,079,013	$61,470,025
Cost of supplies	$5,485,690	$1,085,099	$473,560	$7,044,349
Selling value of goods made	$89,727,625	$14,617,585	$9,503,853	$113,849,063
Clerks and salesmen	3,370	417	449	4,236
Salaries	$4,283,449	$493,835	$517,667	$5,294,951
Wage earners	34,821	4,144	4,041	43,006
Wages	$14,810,075	$1,726,437	$1,317,516	$17,854,028
Horsepower employed	54,506	5,412	7,094	67,012

With a view to giving statements concerning wages that may be considered fairly accurate, the pay rolls of 16 factories throughout the

State were carefully examined, and the amount received by each individual employee noted. In this manner there was obtained the actual amount received in 15 different industries, by 4,401 employees, 3,098 of whom were men and 1,303 women. The average daily income is shown for the different occupations in each industry. Comparison is also made of the daily incomes in certain industries as shown by the reports of 1890 and 1895. The daily income during 1895 is further indicated by assigning the employees in the different occupations of the various industries to classes according to the amount of income from 50 cents to $5. The average daily income and the estimated net yearly wages of each employee in the different occupations in each industry is given with the average wages received for each working day, amount received for days worked, number of days worked, and number of working days in period considered.

UTAH.

First Triennial Report of the Bureau of Statistics of Utah, for the year ended December 31, 1894, with Census, 1895. Joseph P. Bache, Statistician; H. W. Griffith, Chief Clerk. 54 pp.

The bureau issuing this report was organized under an act of the legislature of the Territory, approved March 10, 1892, which designates the statistical year as 1895, and each triennial year thereafter, defines the duties of the Territorial statistician, indicates the character of the statistics to be gathered, and provides for the publication of the reports for each statistical year.

The statistics are presented in detail for cities, towns, and counties. The totals are shown in the following summaries:

POPULATION, 1895.

Males	126,803
Females	120,521
Native born	194,825
Foreign born	52,499
White	245,985
Colored	571
Chinese	768
Total	247,324

INDUSTRIAL AND COMMERCIAL STATISTICS, 1894.

Industrial:	
Establishments	880
Horsepower employed	11,280
Laborers	5,054
Wages	$2,027,118
Capital invested	$5,476,246
Value of plant	$5,986,215
Cost of materials	$2,640,038
Value of products	$6,678,118
Commercial:	
Stores	1,974
Capital invested	$14,551,345
Sales	$32,865,611
Employees	5,023
Wages	$2,814,314

MINING STATISTICS, 1894.

Gold and silver:	
Mines patented	271
Mines unpatented	275
Average number of employees	2,534
Wages	$2,809,817
Output, tons	251,924
Value of output	$4,289,606
Cost of plant	$4,592,187
Cost of development work	$7,991,186
Coal:	
Mines patented	4
Mines unpatented	8
Employees	139
Wages	$59,775
Output, tons	62,101
Cost of plant	$46,708
Cost of development work	$43,600

FARM STATISTICS.

Free of incumbrance	17,684
Mortgaged	2,132
Total	19,816
Amount of mortgages	$1,971,352
Expended for buildings, 1894	$721,229
Acreage, 1894:	
Under cultivation	467,162
Irrigated	417,455
Pasturage, fenced	294,725
Improved	806,650
Unimproved	979,182
Hired laborers	5,960
Wages paid laborers	$1,015,366
Expenses:	
Repairs	$226,879
Fertilizers	$110,621
Interest and taxes	$610,820
Sundries	$303,145
Live stock:	
Milch cows	60,595
Other cattle	238,974
Horses	99,895
Swine over 6 months old	47,703
Mules	1,308
Asses	835
Goats	2,966
Sheep, 1894:	
Number	2,422,802
Value	$3,686,934
Wool, pounds	12,119,763
Value	$864,260
Value per pound	$0.07⅛

PRINCIPAL FARM PRODUCTS, 1894.

Name.	Acreage.	Yield.		
		Bushels.	Value.	Average per acre (bushels).
Wheat	144,717	3,113,073	$1,440,096	21.5
Corn	13,893	260,697	151,433	18.8
Oats	49,334	1,387,710	470,658	28.1
Barley	8,754	271,866	100,207	31.0
Rye	3,791	42,352	20,094	11.2
Lucerne	163,544	a 462,459	1,851,639	a 2.8
Hay	89,255	a 133,646	604,399	a 1.4
Potatoes	13,526	1,649,239	522,855	121.9

a Tons.

SECOND ANNUAL REPORT ON THE BUILDING AND LOAN ASSOCIATIONS OF CALIFORNIA.

Second Annual Report on the Building and Loan Associations of the State of California. By the Board of Commissioners of the Building and Loan Associations. May 31, 1895. xiv, 387 pp.

This report is for the year ending May 31, 1895, and comprises statements in detail from the 144 associations doing business in the State. Forty-three pages are devoted to an analysis of the statistics and a discussion of exceptional methods prevailing in some associations. An appendix of 31 pages presents the laws of the State for the formation, government, control, and existence of corporations.

The number and the proportional amount of business done by each of the three classes into which the associations are divided is given in the following statement:

NUMBER AND PERCENTAGE OF BUSINESS OF DIFFERENT CLASSES OF BUILDING AND LOAN ASSOCIATIONS.

Class of association.	Number.	Per cent of business.
Local	135	86.62
National	7	7.66
Cooperative banks	2	5.72
Total	144	100.00

Of the 135 local associations reported, 134 are on the serial and 1 on the terminating plan.

The aggregate resources and liabilities and the aggregate receipts and disbursements of the different classes of associations are shown in the following table:

RESOURCES AND LIABILITIES, RECEIPTS AND DISBURSEMENTS OF BUILDING AND LOAN ASSOCIATIONS.

Items.	Locals.	Nationals.	Cooperative banks.	Total.
RESOURCES.				
Loans	$17,254,762.34	$1,458,370.86	$1,065,533.25	$19,778,666.45
Arrearages	395,654.10	45,730.04	7,990.00	449,374.14
Cash on hand	273,866.62	54,778.45	27,789.80	356,434.87
Real estate	637,836.61	47,676.92	5,966.79	691,480.32
Other assets	61,154.78	42,460.17	120,949.28	224,564.23
Total	18,623,274.45	1,649,016.44	1,228,229.12	21,360,520.01

RESOURCES AND LIABILITIES, RECEIPTS AND DISBURSEMENTS OF BUILDING AND LOAN ASSOCIATIONS—Concluded.

Items.	Locals.	Nationals.	Cooperative banks.	Total.
LIABILITIES.				
Dues	$12,386,570.51	$1,127,926.22	$846,902.89	$14,361,399.62
Earnings	4,321,368.91	308,682.94	113,804.81	4,743,856.66
Advances	37,187.22	32,950.62	.....	70,137.84
Overdrafts and bills payable	1,038,046.31	67,090.91	100,000.00	1,205,137.22
Undivided profits and unearned premiums	494,401.90	33,180.83	2,775.52	530,358.25
Other liabilities	345,699.60	79,184.92	164,745.90	589,630.42
Total	18,623,274.45	1,649,016.44	1,228,229.12	21,500,520.01
RECEIPTS.				
Balance on hand	119,716.44	16,625.44	34,413.46	170,755.34
Dues	3,069,687.06	394,803.45	288,608.77	3,753,099.88
Paid-up stock	45,050.00	47,021.15	87,225.15	179,296.30
Premiums	364,799.93	72,904.19	45,554.12	483,258.24
Interest	1,219,125.62	73,648.17	57,621.05	1,350,394.84
Fines	24,855.78	7,928.51	3,063.22	35,847.51
Fees	4,950.98	1,762.80	2,952.05	9,665.83
Loans repaid	2,948,619.45	175,610.50	323,844.94	3,448,074.89
Overdrafts and bills payable	1,042,544.61	71,534.79	40,861.30	1,154,940.70
Deposits	135,880.61	10,233.05	1,800,817.66	1,946,931.32
All other sources	163,417.85	72,190.97	31,166.33	266,775.15
Total	9,138,648.93	944,263.02	2,716,128.05	12,799,040.00
DISBURSEMENTS.				
Overdrafts and bills payable	1,520,057.41	65,356.04	91,516.01	1,676,929.46
Loans	2,554,913.69	365,350.25	315,833.92	3,236,097.86
Interest	112,598.50	6,235.93	12,734.01	131,568.44
Dues refunded	2,672,313.83	271,348.57	291,113.11	3,234,775.51
Profits on surrendered shares	771,019.35	44,911.73	24,166.65	840,097.73
Salaries	132,660.40	37,630.92	14,355.00	184,646.32
Taxes	191,175.56	10,745.02	16,195.22	218,115.80
Other expenses	41,909.15	25,482.61	24,509.93	91,901.69
Deposits repaid	100,977.81	5,228.78	1,786,130.37	1,892,336.96
All other disbursements	767,156.61	57,194.72	111,784.03	936,135.36
Balance on hand	273,866.62	54,778.45	27,789.80	356,434.87
Total	9,138,648.93	944,263.02	2,716,128.05	12,799,040.00

The following table presents miscellaneous statistical information that is shown in separate statements, arranged under appropriate heads, and accompanied with proper explanation and analysis:

MISCELLANEOUS STATISTICS OF BUILDING AND LOAN ASSOCIATIONS.

Items.	Locals.	Nationals.	Cooperative banks.	Total.
STOCK AND MEMBERSHIP.				
Authorized capital	$254,200,000	$232,500,000	$100,000,000	$586,700,000
Shares authorized	1,605,600	2,325,000	1,000,000	4,930,600
Shares outstanding, last report	267,058 17/20	83,086 1/2	48,778	398,922 37/20
Shares issued since last report	37,517 1/2	31,815 1/2	8,887	78,220
Total shares issued	304,575 27/20	114,902	57,665	477,142 37/20
Shares canceled since last report	54,248 3/4	31,518 1/2	22,024	107,791 1/4
Shares outstanding	250,327 7/20	83,383 1/2	35,641	369,351 27/20
Shares pledged	89,143 1/2	25,444 1/2	12,669	127,257 9/20
Shares free	161,183 15/18	57,939	22,972	242,094 15/18
Surrender value of all shares	$14,089,893.80	$1,298,857.30	$910,665.54	$16,299,416.64
Number of members	20,439	7,160	2,585	30,184
Number of borrowers	7,222	1,643	526	9,391

[illegible] ASSOCIATION

[illegible]	[illegible]	Cooperative banks.
[illegible]	405	125
[illegible]	[illegible]	$228, 003. 73
[illegible]	[illegible]	87, 830. 19
[illegible]	[illegible]	315, 833. 92
[illegible]	1, 242, 967. 45	906, 143. 44
[illegible]	17	3
[illegible]	847, 386. 17	$5, 966. 79
[illegible]	1, 811, 171. 25	1, 210, 781. 00
[illegible]	1, 679, 128. 60	753, 030. 00
[illegible]	215, 403. 41	159, 389. 81
[illegible]	3, 705, 703. 26	2, 123, 200. 81
[illegible]	139, 613. 63	50, 287. 96
[illegible]	271, 348. 57	291, 113. 11
[illegible]	44, 911. 73	24, 166. 65
[illegible]	316, 260. 30	315, 279. 76
[illegible]	1, 127, 926. 22	846, 902. 89
[illegible]	308, 682. 94	113, 804. 81
[illegible]	1, 436, 609. 16	960, 707. 70
[illegible]	1, 298, 857. 30	910, 665. 54

ANNUAL REPORT ON THE COOPERATIVE SAVINGS AND LOAN ASSOCIATIONS OF NEW YORK.

Annual Report of the Superintendent of Banks Relative to Cooperative Savings and Loan Associations for the year 1894. Transmitted to the Legislature March 1, 1895. Charles M. Preston, Superintendent. 978 pp.

This report opens with 20 pages devoted to a summarization of the statistics, discussion of exceptional methods prevailing in some associations, and the names and addresses of associations that came into existence and of those that were closed during the year. Nine hundred and fifty-eight pages are contained in the appendix and index. The returns for each of the 393 associations reported are presented in detail in the appendix, and the returns for 368 associations are summarized by county totals. The returns for "lot associations" (25) and for the foreign association doing business in the State are shown separately. The laws of the State governing the organization and supervision of associations are given in full.

The following statements give the aggregate assets and liabilities, receipts and disbursements, and the earnings account of the 368 associations the reports of which have been tabulated:

ASSETS.

Loans on bond and mortgage (face value)	$39,584,944
Loans on other securities	1,085,326
Real estate	1,636,995
Cash on hand and in bank	1,799,967
Furniture and fixtures	75,728
Installments due and unpaid	572,872
Other assets	267,426
Add for cents	477
Total	45,023,735

LIABILITIES.

Due shareholders, due installments paid	$33,491,406
Due shareholders, installments paid in advance	2,582,569
Due shareholders, earnings credited	4,451,835
Borrowed money	475,583
Balance to be paid out on loans made	666,557
Undivided earnings	3,017,499
Other liabilities	337,726
Add for cents	560
Total	45,023,735

RECEIPTS (FROM ALL SOURCES).

Cash on hand January 1, 1894	$923,288
Subscriptions on shares, installment	10,892,115
Subscriptions on shares, single payment	1,417,710
Money borrowed	913,867
Mortgages redeemed (in whole or in part)	4,802,779
Other loans redeemed	499,905
Premiums received	667,958
Interest received	1,956,913
Fines received	81,996
Initiation, entrance, or membership fees	68,579
Other receipts	747,826
Add for cents	1,055
Total	22,973,991

DISBURSEMENTS.

Loaned on mortgage	$8,966,034
Loaned on other securities	802,531
Paid on withdrawals, dues	7,696,403
Paid on withdrawals, dividends	915,137
Salaries, advertising, printing, and rent	532,166
Other disbursements	2,285,158
Cash on hand	1,775,738
Add for cents	824
Total	22,973,991

EARNINGS ACCOUNT.

DR.

Interest	$2,011,807.70
Premium	748,576.54
Fines	87,711.14
Transfer fees	2,285.01
Passbooks and initiation, membership, or share fee	58,897.32
Other earnings	172,596.79
Total	3,081,874.50

CR.

Expenses	$946,778.64
Earnings over expenses	2,135,095.86
Total	3,081,874.50

The following is a statement of miscellaneous items of interest compiled from the tabulated reports of the 368 associations:

Foreclosures for the year	454
Shares issued during the year	476,850$\frac{13}{50}$
Shares in force at the close of the year	1,336,882$\frac{343}{1000}$
Shares pledged or borrowed on	299,983$\frac{103}{1000}$
Borrowing members	28,112
Nonborrowing members	134,726
Female members	35,069
Shares held by female members	245,724$\frac{315}{1000}$
Loans now secured by mortgages in the State	$31,484,730.86
Total expenses	$946,778.64

DECENNIAL CENSUS OF KANSAS FOR 1895.

Report of the Kansas State Board of Agriculture for the month ending December 31, 1895. Part I.—State decennial census, 1895. Part II.—Farm, crop, and live-stock statistics. F. D. Coburn, Secretary. 136 pp.

In Part I, which embraces statistics of population for 1895, the returns are presented by counties and minor civil divisions. The aggregate population by counties for prior census years is also shown. The following statement gives the totals for the State for 1885 and 1895:

POPULATION, 1885 AND 1895.

Items.	1885.	1895.
Males	679,300	693,928
Females	589,230	640,806
Total	1,268,530	1,334,734
Native born:		
Males	601,946	621,185
Females	533,909	585,147
Total	1,135,855	1,206,332
Foreign born:		
Males	77,354	72,744
Females	55,321	55,658
Total	132,675	128,402
White:		
Males	654,825	644,804
Females	565,498	640,945
Total	1,220,323	1,285,749
Colored:		
Males	24,379	24,411
Females	23,655	24,300
Total	48,034	48,711
Chinese and Indians:		
Males	96	148
Females	77	126
Total	173	274
Number of families	251,661	279,816
Average number of persons to family	5.04	4.77
Children of school age, 5 to 20 years, inclusive:		
Males	244,440	252,264
Females	232,437	247,059
Total	476,877	499,323
Males of military age	273,628	280,693
Males of voting age, 21 years and over	336,371	359,663
Persons 21 years of age and over	600,183	668,568
Persons engaged in agriculture	202,279	185,394
Persons engaged in professional and personal services	49,746	63,694
Persons engaged in trade and transportation	32,549	42,574
Persons engaged in manufacturing and mechanical industries	43,421	43,719
Persons engaged in mining	3,699	7,195

Part II relates to farm, crop, and live-stock statistics.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

General Report on the Wages of the Manual Labor Classes in the United Kingdom, with Tables of the Average Rates of Wages and Hours of Labor of Persons Employed in Several of the Principal Trades in 1886 and 1891. 1893. xlviii, 481 pp. (Published by the Labor Department of the Board of Trade.)

This report is the final one of a series on this subject prepared by the labor department of the British Board of Trade, which are based on a census of wages taken in conformity with a resolution of the House of Commons of March 2, 1886. The data were obtained by means of schedules sent by mail to employers calling for a statement as to "the weekly rates of wages actually earned in a particular week in October, 1886, by the numbers actually at work in that week, divided according to the varied classification of their occupations, and distinguishing in all cases the wages paid to men, to lads and boys, to women, and to girls, respectively;" half-timers were also designated, and a distinction made between wages earned by "piece" and wages earned by "time" work. The "numbers and rates of wages for each occupation" were also required. A distinct set of questions called for the total wages paid during 1885, with particulars as to the maximum amount paid as wages in one week with the number employed for that week; also the minimum amount paid as wages in one week with the number employed for that week.

From these reports the actual earnings for 1886 were estimated by multiplying the wages for a given week by 52 and making any deductions that might seem expedient, the totals being verified by the totals reported for 1885. The results obtained from the two processes are summarized in the following statement, which shows the general average annual earnings of men, women, and children:

AVERAGE ANNUAL WAGES IN VARIOUS MANUFACTURING INDUSTRIES, OBTAINED BY DIFFERENT METHODS, COMPARED.

Industry.	Total wages for 1885 divided by number employed Oct. 1, 1886.	Average rate for a week in 1886 multiplied by 52.
Pig iron	$356.23	$301.48
Engineering, etc	286.30½	277.14½
Iron and steel shipbuilding	370.34	328.73
Tin plate	268.87½	283.47½
Brass work and metal wares	266.68½	282.01½
Sawmills	256.95	271.06½
Wood shipbuilding	277.63½	261.82
Cooperage	276.41½	292.96½
Coach and carriage building	255.73½	273.98½

AVERAGE ANNUAL WAGES IN VARIOUS MANUFACTURING INDUSTRIES, OBTAINED BY DIFFERENT METHODS, COMPARED—Concluded.

Industry.	Total wages for 1885 divided by number employed Oct. 1, 1886.	Average rate for a week in 1886 multiplied by 52.
Boot and shoe factories	(a)	$231.64½
Breweries	$290.28½	295.64
Distilleries	261.09	255.98
Brick and tile	219.48	237.97
Chemical manure	321.67½	272.03½
Railway-carriage and wagon building	372.04½	285.17½
Printing and engraving trades:		
Large establishments	256.22	255.73½
Small establishments	204.39½	211.20½
Newspapers	355.74	375.45

a Not ascertained.

There is a rough correspondence between the high annual average rates for a normal year of fifty-two weeks and the high percentage of men employed. This comparison, however, is not likely to hold in dissimilar trades in which the rates of wages of men are very different. In the following statement, which shows the average weekly wages for, and the percentage of, men, lads and boys, women, and girls, respectively, the industries are arranged according to the annual wages for a normal year of fifty-two weeks:

AVERAGE WEEKLY WAGES AND PERCENTAGE OF MEN, LADS AND BOYS, WOMEN, AND GIRLS IN VARIOUS MANUFACTURING INDUSTRIES.

Industry.	Computed wages for 52 weeks in 1886.	Men.		Lads and boys.		Women.		Girls.	
		Wages.	Per cent.	Wages.	Per cent.	Wages.	Per cent.	Wages.	Per cent.
Printing and engraving, small establishments	$211.20½	$7.09½	43.6	$1.70½	49.1	$2.57½	2.0	$1.50	5.3
Boot and shoe factories	231.64½	5.90	59.2	2.03	16.3	3.04	17.7	1.34	6.8
Brick and tile	237.97	5.55½	71.0	2.19	22.2	2.27	5.8	1.84½	1.0
Printing and engraving, large establishments	255.73½	8.19	46.5	2.09	37.6	2.86	7.0	1.36	8.9
Distilleries	255.98	4.95	98.7	2.39½	.7	2.29	.6	.....	.....
Wood shipbuilding	261.82	6.89½	65.0	1.56	35.0	.....	.....	.....	.....
Sawmills	271.06½	5.90	81.7	2.15	18.3	.....	.....	.....	.....
Chemical manure	272.03½	5.59½	88.7	2.39½	8.5	2.13	2.8	.....	.....
Coach and carriage building	273.98½	6.45	75.4	1.62	24.6	.....	.....	.....	.....
Engineering, etc	277.14½	6.26½	76.9	2.21	23.1	.....	.....	.....	.....
Brass work and metal wares	282.01½	7.20	65.0	2.05	29.6	3.14½	3.9	1.50	1.5
Tin plate	283.47½	8.13	52.2	2.73½	24.1	2.51½	17.5	1.68½	6.2
Railway-carriage and wagon building	285.17½	6.12½	82.3	2.55½	17.1	3.22½	.4	1.70½	.2
Cooperage	292.96½	7.40	68.1	1.88½	31.9	.....	.....	.....	.....
Breweries	295.64	5.90	94.0	2.37	6.0	.....	.....	.....	.....
Pig iron	301.48	5.96	95.2	2.59½	4.8	.....	.....	.....	.....
Iron and steel shipbuilding	328.73	7.11½	80.8	2.96	19.2	.....	.....	.....	.....
Newspapers	375.45	9.02½	74.3	2.03	22.9	2.96	.8	1.58	2.0

The percentage of men employed at stated weekly wages in different industries is shown in the following statement:

PERCENTAGE OF MEN EMPLOYED IN VARIOUS MANUFACTURING INDUSTRIES, BY STATED WEEKLY WAGES.

Industry.	Percentage of men earning—						Total.
	Under $4.86½.	$4.86½ or under $6.08½.	$6.08½ or under $7.30.	$7.30 or under $8.51½.	$8.51½ or under $9.73½.	$9.73½ or over.	
Printing and engraving, small establishments	4.8	15.7	30.6	29.3	11.2	8.4	100.0
Boot and shoe factories	11.9	49.0	22.9	10.9	3.3	2.0	100.0
Brick and tile	27.8	39.6	18.4	11.5	1.6	1.1	100.0
Printing and engraving, large establishments	3.1	8.7	16.4	27.5	23.9	20.4	100.0
Distilleries	52.5	30.4	8.0	4.8	3.1	1.2	100.0
Wood shipbuilding	11.5	18.5	14.5	43.6	9.9	2.0	100.0
Sawmills	26.0	31.4	19.3	15.8	4.9	2.6	100.0
Chemical manure	33.4	27.7	25.7	8.6	2.9	1.7	100.0
Coach and carriage building	15.0	26.3	23.9	22.6	6.3	5.9	100.0
Engineering, etc	29.5	16.9	28.9	15.2	5.9	3.6	100.0
Brass work and metal wares	8.2	18.1	23.6	28.4	10.8	10.9	100.0
Tin plate	16.1	13.3	7.1	8.8	21.5	33.2	100.0
Railway-carriage and wagon building	24.0	24.5	22.6	26.0	1.6	1.3	100.0
Cooperage	6.4	14.1	23.2	27.2	19.0	10.1	100.0
Breweries	26.2	37.0	18.9	8.2	4.4	5.3	100.0
Pig iron	33.5	23.1	22.5	15.0	2.1	3.8	100.0
Iron and steel shipbuilding	18.9	14.2	20.5	21.9	11.4	13.1	100.0
Newspapers	.4	8.9	13.5	18.0	21.8	37.4	100.0

Comparing different districts it is found that higher rates of wages prevail in Great Britain than in Ireland, and higher in England than in Scotland. The following statement is a comparison between the average annual wages in England, Scotland, and Ireland, and the United Kingdom in certain industries for which the necessary particulars were secured:

AVERAGE ANNUAL WAGES IN VARIOUS MANUFACTURING INDUSTRIES IN ENGLAND, SCOTLAND, IRELAND, AND THE UNITED KINGDOM, COMPARED.

[The averages in this table were obtained by multiplying the average for a week in 1886 by 52.]

Industry.	England.	Scotland.	Ireland. (a)	United Kingdom.
Engineering, etc	$285.66½	$264.98	$223.37	$277.14½
Brass work and metal wares	290.04½	266.44	248.68	282.01½
Sawmills	281.04	255.25	241.62	271.06½
Coach and carriage building	279.33½	258.90	257.44	273.96½
Breweries	300.99½	266.92½	246.49	295.64
Distilleries	313.64½	254.27½	229.70	255.98
Chemical manure	285.17½	243.32½	228.72½	272.03½
Printing and engraving:				
Large establishments	269.84½	228.72½	214.85½	255.73½
Small establishments	214.37	204.15	179.33	211.29½

a Most of the returns used came from Dublin, Belfast, and other large towns.

Particulars of rates of wages, etc., are also given for indoor workers in the tailoring, dressmaking, millinery, mantle making, and linen-underclothing industries. The total amount of wages returned for the year 1885, and the numbers employed, included in many cases persons working at their own homes and only partially employed by the firms who made the returns. The details for 1885 were further complicated in the

case of the industries referred to by the wages and numbers of those who were boarded and lodged not being distinguished. For these reasons it is impossible to give annual rates based on the total wages and numbers for 1885.

AVERAGE ANNUAL WAGES OF INDOOR WORKERS IN TAILORING, DRESSMAKING, AND SIMILAR INDUSTRIES.

[The averages in this table were obtained by multiplying the average for a week in 1886 by 52.]

Industry.	Men.	Lads and boys.	Women.	Girls.	Total.
Tailoring	$399.54	$67.40	$192.95½	$62.29	$339.68
Dressmaking (a)	.....	.....	170.08½	29.68½	136.26
Millinery (a)	.....	.....	167.41	28.47	94.65½
Mantle making (a)	.....	.....	182.49½	46.96	165.70½
Baby linen, etc	.....	.....	160.11	47.93½	143.32

a Not including women and girls who, in addition to money wages, were allowed full or partial board and lodging.

The average annual wages shown for tailoring are subject to considerable deduction for lost time, and are also affected by the number of cutters who are engaged in cutting out garments that are made up not only by the persons employed on the premises, but by large numbers of outworkers. A complete average for the trade would include outworkers as well as indoor workers, but this can not be arrived at from the data obtained. In the case of girls, the average for dressmaking and millinery is much below the averages for the other industries, owing to the fact that in these two industries a large proportion of the young girls were not paid any wages, as will be seen by the following statement, which relates exclusively to those who were not provided with lodging or food in addition to money wages:

PERCENTAGE OF WOMEN AND GIRLS EMPLOYED AT STATED WEEKLY WAGES IN TAILORING, DRESSMAKING, AND SIMILAR INDUSTRIES.

Industry.	Women.						Girls.			
	$1.70½ or under $2.43½.	$2.43½ or under $3.65.	$3.65 or under $4.86½.	$4.86½ or under $6.08½.	$6.08½ or over.	Total.	Unpaid apprentices.	$0.48½ or under $1.21½.	$1.21½ or under $1.70½.	Total.
Tailoring	15.6	27.4	37.5	19.5	.....	100.0	.....	26.7	73.3	100.0
Dressmaking	16.4	54.5	25.2	2.6	1.3	100.0	42.5	30.8	26.7	100.0
Millinery	25.5	34.9	29.2	7.6	2.8	100.0	47.0	36.8	16.2	100.0
Mantle making	8.0	52.7	35.3	2.7	1.3	100.0	14.3	52.4	33.3	100.0
Baby linen, etc	24.6	24.9	50.0	.5	.....	100.0	.....	a 92.1	7.9	100.0
Total	17.3	43.4	34.4	3.9	1.0	100.0	33.3	43.3	23.4	100.0

a This percentage is made up of 76.2 per cent of full-timers, paid 73 cents to $1.21½ per week, and 15.9 per cent of half-timers, paid 61 cents to 85 cents.

The number of women provided with board or lodging in the dressmaking, mantle making, and millinery industries is only about 12 per cent of the total number employed in all three industries, and their average annual earnings are considerably higher than those of the women who do not receive either board or lodging. The explanation

of this seeming anomaly is that those who are given board and lodging, or partial board, are skilled workers, viz, fitters, heads of tables, cutters, etc.

The following statement shows the number, percentage, and average annual wages of the women who are not allowed board or lodging, allowed full board and lodging, and allowed partial board, respectively:

NUMBER, PERCENTAGE, AND AVERAGE ANNUAL WAGES OF WOMEN EMPLOYED IN THE DRESSMAKING, MILLINERY, AND MANTLE MAKING INDUSTRIES, BY METHOD OF PAYMENT.

Industry.	Without board or lodging.			With full board and lodging.			With partial board.			Total.	
	Number.	Per cent.	Average wages.	Number.	Per cent.	Average wages.	Number.	Per cent.	Average wages.	Number.	Per cent.
Dressmaking	616	87.6	$170.08½	43	6.1	$238.46	44	6.3	$268.14½	703	100.0
Millinery	106	75.2	167.41	32	22.7	232.13	3	2.1	314.13½	141	100.0
Mantle making	300	94.9	182.49½	7	2.2	285.42	9	2.9	411.95	316	100.0
Total	1,022	88.1	173.49	82	7.1	239.92	56	4.8	293.69½	1,160	100.0

The data concerning wages and employees on railways, in shipping, domestic service, the building trades, and various public employments, such as the army, navy, and hospitals, were obtained in a somewhat different manner than that for the other industries. Of this group only the statistics concerning the building trades will be referred to in this synopsis. The information concerning the building trades was obtained from employers, the National Association of Master Builders, and trade union reports, as well as other sources, and covers the years 1886 and 1891.

The first statement presented deals with the total number of employees reported for all occupations coming under this general group, and shows the percentage of men employed at stated weekly rates of wages.

PERCENTAGE OF MEN EMPLOYED IN BUILDING TRADES, BY WEEKLY WAGES, 1886 AND 1891.

Weekly wages.	Per cent of total.			
	January.		July.	
	1886.	1891.	1886.	1891.
Under $4.86½	22.1	14.8	6.3	6.8
$4.86½ or under $6.08½	12.9	22.3	23.2	27.5
$6.08½ or under $7.30	23.7	13.5	14.6	10.1
$7.30 or under $8.51½	33.1	32.0	30.2	19.8
$8.51½ or under $9.73½	6.1	14.0	21.0	28.2
Above $9.73½	2.1	3.4	4.7	7.6
Total	100.0	100.0	100.0	100.0

The average weekly rate for the year would not be the mean of the rates given for January and July, but a figure arrived at on the basis of taking about 37 weeks of the summer rate, and 15 weeks of the winter rate, and dividing the result by 52. That would yield the average rate for a normal week, the result being subject, as in the case of all

other trades, to some deductions for lost time, owing to irregularity of employment, bad weather, and other causes. The deductions to be made from the above rates will not exceed 10 per cent. In a good year, the time lost in the building trades during bad weather is made up to some extent by overtime during the summer months. The overtime pay is excluded from the rates of wages given.

The following statement shows the number of employees and the average weekly wages for the principal classes of occupations included in the group of building trades:

EMPLOYEES AND AVERAGE WEEKLY WAGES IN BUILDING TRADES, IN JANUARY AND JULY, FOR THE YEARS 1886 AND 1891.

Occupations.	January.				July.			
	1886.		1891.		1886.		1891.	
	Employees.	Average weekly wages.	Employees.	Average weekly wages.	Employees.	Average weekly wages.	Employees.	Average weekly wages.
Masons	442	$6.79½	402	$7.50½	451	$7.95	610	$8.39½
Bricklayers	232	7.54½	428	7.84½	337	8.64	888	8.98½
Carpenters and joiners	1,094	7.70½	1,419	8.21	1,139	8.31½	1,516	8.57½
Painters	277	6.69	469	7.09½	468	7.72½	813	8.17
Laborers	1,092	4.64½	1,740	4.80½	1,401	5.25	2,845	5.53½

While the numbers shown in the above statement as having been employed in July are larger than the numbers for January, there is no regular proportionate increase, the rise in a year like 1891 being more marked than in a year of depression like 1886. There is an increase shown in the wages for each occupation presented. This increase has occurred at a time when the standard weekly hours of labor have been on the decline, although the reduction in hours of work has not been as general as the increase in rates of wages.

The number of employees and total wages paid per week in 1886 and 1891 are shown in the following statement. The figures given in this statement relate to all occupations included in the returns received for building trades.

EMPLOYEES AND WAGES IN ALL BUILDING TRADES OCCUPATIONS, 1886 AND 1891.

	1886.	1891.
Employees:		
Highest number employed	5,968	8,743
Lowest number employed	3,596	5,576
Mean of the 52 weeks	4,538	8,088
Wages:		
Highest weekly amount	$33,783.24½	$57,025.64½
Lowest weekly amount	17,339.34	28,191.63½
Mean of the 52 weeks	27,923.97½	50,197.94½

The information summarized in the preceding statements is presented in detail in the report, so that similar data can be obtained for each occupation in the given industries in different districts of the United Kingdom.

In conclusion, the statistics for all classes of labor in different industries are summarized. With the exception of the statistics for railways, mercantile marine, building, and other trades referred to as having been treated separately, this summary includes all data gathered at or in connection with the census of wages of 1886. The totals are representative of perhaps three-fourths of the manual laboring classes of the United Kingdom.

"The general effect of this summary is to show an average rate of wages per head of 24s. 7d. ($5.98) per week, equal to £64 ($311.45½) per annum, if the weekly rate were multiplied by 52. Questions of course arise upon such a statement as to regularity of employment, overtime, and the like; * * * but considering that the year 1886, to which the census primarily relates, was a year of depression, and the great number of trades dealt with where employment is not irregular, I should not myself consider that any great mistake would be made in assuming average earnings for men for the average of the last few years to be not far short of 24s. 7d. ($5.98) per week. The point may also be raised that the rates are for a year a considerable way back; but there has been enough experience in the department to show that rates of wages change rather slowly, and as the tendency has, on balance, been upward since 1886, there is the more reason to believe that even if an average rate, as shown above, was rather above the average earnings of 1886 in particular, it would not be above the average of 1886–1892." Similar averages for women, lads and boys, and girls show the weekly wages to have been $3.08, $2.17, and $1.54, respectively.

The following statement, which includes all industries, as indicated above, shows the percentage of men, women, lads and boys, and girls, respectively, employed at stated weekly wages:

PERCENTAGE OF MEN, WOMEN, LADS AND BOYS, AND GIRLS EMPLOYED IN ALL INDUSTRIES, BY STATED WEEKLY WAGES.

Weekly wages.	Men.	Women.	Lads and boys.	Girls.
Half-timers	.....	.....	11.9	27.2
Under $2.43½	0.1	26.0	49.7	62.5
$2.43½ to $3.65	2.4	50.0	32.5	8.9
$3.65 to $4.86½	21.5	18.5	5.8	1.4
$4.86½ to $6.08½	33.6	5.4	.1	.....
$6.08½ to $7.30	24.2	.1	.....	.....
$7.30 to $8.51½	11.6	.....	.....	.....
$8.51½ to $9.73	4.2	.....	.....	.....
Above $9.73	2.4	.....	.....	.....
Total	100.0	100.0	100.0	100.0

In the following statement 8,073 returns, relating to 816,106 employees, exclusive of those in Government works, are summarized so as to show the actual number and percentage employed at stated yearly rates of wages:

NUMBER AND PER CENT OF EMPLOYEES REPORTED FOR ALL INDUSTRIES, BY ANNUAL WAGES, OCTOBER 1, 1886.

Annual wages.	Employees.	
	Number.	Per cent.
Under $194.66	349,832	42.9
$194.66 to $243.32½	67,818	8.3
$243.32½ to $291.99	268,295	32.9
$291.99 to $340.65½	67,320	8.2
Of and above $340.65½	62,841	7.7
Total	816,106	100.0

The average annual wages of all employees, obtained by dividing the total wages in 1885, exclusive of those paid in Government works, by the total number of employees October 1, 1886, as shown in the above table, was $228.72½.

The numbers in the above statement under $194.66 may be considered to represent the trades in which female or child labor is mainly employed.

The average annual earnings for men in the industries referred to as having been treated separately are given as follows: Railways (1891), $291.99; building trades (1891), $355.25½; seamen (mercantile marine), $316.32½ (*a*); seamen royal navy (petty officers and seamen), $316.32½ (*a*); army (noncommissioned officers and men), $233.59 (*a*); domestic servants (large households), $330.92 (*a*); employees in lunatic asylums, $291.99 (*a*); employees in hospitals and infirmaries, $296.85½ (*a*).

Erhebung über Verhältnisse im Handwerk veranstaltet im Sommer 1895. Bearbeitet im kaiserlichen statistischen Amt. 579 pp.

This work, an investigation in reference to the condition of skilled trades, was undertaken by the German Government for the use of members of the Reichstag and other officials. According to the introductory remarks there exists among German artisans a desire that the skilled trades should be organized on a firmer basis than the present voluntary trade guilds, especially with the view of obtaining greater efficiency in the technical training of apprentices. In response to this desire, the German Government, before taking any stand in the matter, deemed it advisable to ascertain the condition of the skilled trades at the present time, and for that purpose instituted an investigation calling for certain information concerning skilled artisans, and concerning other matters of interest in connection with the organization of the skilled trades.

a Including estimated value of food and lodging where necessary.

A selection was made of 37 localities in Prussia, Bavaria, Saxony, Würtemberg, Baden, Hesse, and Lübeck, having an aggregate population in 1890 of 2,292,525 persons and an area of 18,700 square kilometers (7,220 square miles), care being taken to select such districts as would be typical of the industrial conditions of the Empire generally.

In each of the districts a census enumeration was made of all persons coming under the following three categories: First, all occupations which may be regarded as purely skilled; second, those in which there is a doubt as to whether the labor may be regarded as skilled or factory work; third, those in which skilled work is done at the workingman's home, but where he is in the employ of others. The work was done by means of blank schedules distributed by the communal and police authorities and collected by them within five days. In this manner 64,899 blanks were distributed, of which 61,257 were returned in such shape that they could be used. These give information concerning 134,712 persons. The enumeration was made in the summer of 1895.

The report consists of an introduction explaining the object of and methods pursued in the investigation and an analysis of the results obtained, and a series of statistical tables showing by enumeration districts and for each skilled trade, respectively, the number and sex of employers and independent master workmen, foremen, journeymen, apprentices, and unskilled laborers covered by the investigation, the number of trades learned, and length of apprenticeship of all male employers and independent master workmen, etc.

The results of this investigation of most general interest, as far as those engaged in undoubtedly skilled trades are concerned, can be summarized in two tables. The first of these shows the distribution of these workingmen according to whether they are employers or independent master workmen, journeymen, apprentices, or other employees for each trade separately.

NUMBER OF PROPRIETORS IN THE SKILLED TRADES AND THEIR EMPLOYEES.

Skilled trades.	Proprietors.			Foremen.	Journeymen.			Apprentices.			Other employees.	Total persons occupied.
	Employing labor.	Working alone.	Total.		At trades specified.	At other trades.	Total.	At trades specified.	At other trades.	Total.		
Barbers and hairdressers	613	591	1,204	3	451	2	453	583	.....	583	11	2,254
Wigmakers and hairdressers	55	17	72	.....	67	.....	67	52	.....	52	4	195
Bakers	2,958	1,559	4,517	117	2,706	25	2,731	1,775	13	1,788	483	9,636
Surgical instrument and bandagemakers	77	39	116	4	96	1	97	117	.....	117	9	343
Coopers	329	566	895	6	329	2	331	211	2	213	24	1,469
Brewers	264	73	337	51	380	.....	380	126	.....	126	178	1,07[illegible]
Well diggers	30	29	59	.....	48	2	50	9	.....	9	29	147
Bookbinders and paper-box makers	200	160	360	5	203	3	206	177	2	179	74	82[illegible]
Brushmakers	72	98	170	4	86	.....	86	46	.....	46	7	31[illegible]
Confectioners	219	65	284	9	264	.....	264	246	.....	246	78	88[illegible]
Roofers	320	361	681	12	590	5	595	166	1	167	88	1,5[illegible]
Wire drawers	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	[illegible]

NUMBER OF PROPRIETORS IN THE SKILLED TRADES AND THEIR EMPLOYEES—Continued.

Skilled trades.	Proprietors.			Foremen.	Journeymen.			Apprentices.			Other employees.	Total persons occupied.
	Employing labor.	Working alone.	Total.		At trades specified.	At other trades.	Total.	At trades specified.	At other trades.	Total.		
Wood turners, pipe cutters, etc.	163	227	390	2	190	10	200	139	.....	139	7	738
Printers (book)	116	11	127	9	246	10	256	248	6	254	65	711
Printers (on stone, zinc, copper, etc.)	24	9	33	.....	37	3	40	45	1	46	22	141
Color printers	3	1	4	.....	5	.....	5	4	.....	4	.....	13
Dyers	58	54	112	5	86	.....	86	17	.....	17	81	301
File cutters	48	19	67	3	62	.....	62	31	.....	31	8	171
Fitters (gas, water pipes, heating apparatus)	31	11	42	3	69	4	73	30	1	31	6	155
Brass and copper molders	35	20	55	.....	52	6	58	46	3	49	8	170
Tanners	126	67	193	4	228	7	235	50	.....	50	52	534
Pewter, zinc, and metal molders	23	25	48	.....	40	6	46	21	7	28	5	127
Glaziers	173	221	394	4	212	6	218	101	.....	101	4	721
Bell molders	1	.....	1	.....	.....	.....	.....	1	.....	1	.....	2
Jewelry workers	67	79	146	1	80	6	86	40	1	41	9	283
Engravers, chasers	16	20	36	.....	14	.....	14	17	.....	17	5	72
Glove makers	15	30	45	.....	11	1	12	8	1	9	5	71
Hat and cap makers	44	82	126	.....	56	.....	56	15	.....	15	12	209
Comb makers	5	18	23	.....	6	.....	6	.....	.....	.....	1	30
Tinsmiths	505	342	847	4	553	10	563	503	.....	503	33	1,950
Basket makers	441	901	1,342	4	445	.....	445	221	.....	221	16	2,028
Furriers	66	121	187	3	75	6	81	32	.....	32	23	326
Coppersmiths	100	46	146	5	140	22	162	110	8	118	13	444
Sign and house painters, lacquerers	973	807	1,780	17	1,898	11	1,909	1,014	5	1,019	126	4,851
Masons	1,114	1,576	2,690	254	7,771	782	8,553	1,526	164	1,690	2,607	15,794
Butchers	2,012	1,460	3,472	41	1,818	17	1,835	1,345	1	1,346	290	6,984
Millers	978	452	1,430	104	1,127	120	1,247	248	3	251	275	3,307
Millwrights	30	28	58	2	81	4	85	15	.....	15	4	164
Musical-instrument makers	17	23	40	3	29	.....	29	5	.....	5	2	79
Pin and needle makers	8	12	20	2	6	.....	6	6	.....	6	1	35
Nail smiths	27	177	204	.....	33	.....	33	4	.....	4	.....	241
Fringe makers	16	14	30	.....	15	.....	15	5	.....	5	21	71
Saddlers and harness makers	519	587	1,106	6	472	10	482	426	1	427	10	2,031
Ship carpenters	15	77	92	3	156	.....	156	35	.....	35	2	288
Grinders (knives, scissors, tools)	726	991	1,717	1	404	.....	404	576	.....	576	11	2,709
Iron workers (not specialists)	552	239	791	22	593	.....	593	1,214	.....	1,214	40	2,660
House and lock smiths	170	20	190	11	215	.....	215	413	1	414	3	833
Safe makers	7	.....	7	1	28	.....	28	26	.....	26	.....	62
Range makers	13	.....	13	4	34	.....	34	30	.....	30	1	82
Ornamental iron workers	11	5	16	2	31	.....	31	13	.....	13	10	72
Iron workers on vehicles	.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	2
Iron workers on machinery	28	13	41	.....	54	.....	54	57	.....	57	.....	152
Iron turners	.....	6	6	.....	.....	.....	.....	.....	.....	.....	.....	6
Tool makers	2	3	5	.....	6	.....	6	1	.....	1	.....	12
Blacksmiths (not specialists)	1,490	1,049	2,539	23	1,191	.....	1,191	1,069	.....	1,069	42	4,864
Axle and spring makers	8	4	12	.....	8	.....	8	10	.....	10	.....	30
Anchor, anvil, and ship smiths	13	6	19	.....	11	.....	11	9	.....	9	1	40
Shapers (façon schmiede)	1	.....	1	.....	2	.....	2	.....	.....	.....	.....	3
Horseshoers and gunsmiths	381	195	576	11	367	2	369	256	.....	256	12	1,224
Chainsmiths	3	2	5	.....	10	.....	10	1	.....	1	3	19
Cutlers	52	90	142	2	54	.....	54	18	.....	18	4	220
Scythe and sickle smiths	1	1	2	.....	1	.....	1	.....	.....	.....	.....	3
Tool smiths	31	26	57	.....	23	.....	23	24	.....	24	4	108

NUMBER OF PROPRIETORS IN THE SKILLED TRADES AND THEIR EMPLOYEES—Concluded.

Skilled trades.	Proprietors.			Foremen.	Journeymen.			Apprentices.			Other employees.	Total persons occupied.
	Employing labor.	Working alone.	Total.		At trades specified.	At other trades.	Total.	At trades specified.	At other trades.	Total.		
Tailors	2,168	3,462	5,630	55	2,734	1	2,735	1,726	.....	1,726	113	10,259
Chimney sweeps	103	22	125	6	102	1	103	42	.....	42	2	278
Joiners (not specialists)	1,704	2,013	3,717	32	2,386	.....	2,386	1,448	.....	1,448	74	7,657
House joiners	333	217	550	9	612	2	614	304	2	306	15	1,494
Wooden toy and ornament makers	1	2	3	.....	2	.....	2	.....	.....	.....	1	6
Trunk makers	11	4	15	1	19	.....	19	4	.....	4	1	40
Cabinet makers	8	4	12	.....	18	.....	18	10	.....	10	1	41
Cabinet makers, fancy inlaid and scroll work	2	1	3	.....	9	.....	9	3	.....	3	.....	15
Pattern makers	7	8	15	.....	8	.....	8	2	.....	2	.....	25
Furniture makers	238	168	406	6	457	6	463	237	1	238	19	1,132
Floor carpenters	1	.....	1	.....	1	.....	1	1	.....	1	.....	3
Coffin makers	15	5	20	.....	27	.....	27	9	.....	9	1	57
Chair makers	15	22	37	.....	27	.....	27	9	.....	9	.....	73
Loom makers	1	.....	1	.....	2	.....	2	.....	.....	.....	.....	3
Wooden tool makers	4	.....	4	.....	5	.....	5	.....	.....	.....	.....	9
Shoe and slipper makers	2,696	6,710	9,406	31	2,787	3	2,790	1,754	.....	1,754	120	14,101
Soap and candle makers	28	25	53	3	32	.....	32	5	.....	5	38	131
Rope makers	88	97	185	5	110	.....	110	34	.....	34	27	361
Sieve makers	11	19	30	.....	16	.....	16	1	.....	1	.....	47
Spur and screw makers and riflers	34	23	57	.....	47	1	48	36	.....	36	.....	141
Umbrella and parasol makers	15	12	27	2	18	.....	18	8	.....	8	35	90
Toy and woodwork finishers	2	5	7	1	6	.....	6	4	.....	4	1	19
Stone cutters	176	107	283	26	865	4	869	182	1	183	88	1,449
Stone setters	57	37	94	5	207	.....	207	31	.....	31	160	497
Knitters and embroiderers	72	151	223	1	85	.....	85	17	.....	17	12	338
Stucco workers	67	46	113	.....	223	4	227	82	1	83	51	474
Paper hangers, decorators	155	122	277	7	176	11	187	158	3	161	11	643
Potters	172	137	309	4	311	.....	311	148	.....	148	63	825
Cloth makers	82	111	193	.....	77	.....	77	29	.....	29	14	313
Watch and clock makers	231	352	583	3	186	2	188	164	1	165	5	944
Gilders	22	8	30	.....	30	2	32	20	.....	20	5	87
Finishers of rough wooden ware	101	314	415	2	93	.....	93	47	.....	47	27	584
Wagon makers	773	1,222	1,995	8	640	19	659	474	3	477	41	3,180
Weavers	883	3,800	4,683	2	736	2	738	151	.....	151	330	5,904
Carpenters	586	988	1,574	48	2,870	713	3,583	693	126	819	515	6,539
Total	27,257	33,942	61,199	1,024	40,189	1,854	42,043	21,366	359	21,725	6,589	132,580

Of the total number of persons engaged in the skilled trades, as shown in this table, 46 per cent were proprietors of establishments, 1 per cent were foremen, 32 per cent were journeymen, 16 per cent were apprentices, and 5 per cent were employed at unskilled labor. Of the proprietors, 44 per cent employed labor and 55½ per cent worked alone.

As regards sex, the enumeration shows that out of the 61,199 proprietors in the above table, 1,607 were females. Of the proprietresses [illegible] were 367 who worked alone, that is, who did not employ labor, of whom 93 were tailoresses, 144 weavers, 19 bakers, 17 shoe and slipper makers, 16 knitters and embroiderers, 9 butchers, 8 millers, 7 basket

makers, 6 hairdressers, 3 brush makers, 2 furriers, 2 watchmakers, 1 confectioner, 1 hat and cap maker, 1 saddler, 1 joiner, 1 grinder (cutlery), 1 furniture maker, 1 sieve maker, 1 umbrella maker, and 1 stonecutter. The remaining 1,040 proprietresses were employers of labor. They represent almost every trade enumerated, though the greater part fall within the classes of tailoresses, of whom there were 231, bakers 206, butchers 98, millers 71, weavers 45, shoe and slipper makers 43, blacksmiths (not specialists) 28, joiners (not specialists) 24, and barbers and hairdressers 23. Of the total of 1,024 foremen, but 5 were females. Among the employees there were 803 female journeymen, 405 female apprentices, and 1,262 females employed at occupations other than skilled trades.

The next table shows the degree of technical training undergone by male proprietors of establishments engaged in purely skilled trades.

DURATION OF APPRENTICESHIP OF MALE PROPRIETORS IN SKILLED TRADES.

Skilled trades.	Male proprietors.	Number who have served an apprenticeship of years specified.									Number who have served apprenticeships in—	
		1 or under.	Over 1, but not over 2.	Over 2, but not over 3.	Over 3, but not over 4.	Over 4, but not over 5.	Over 5, but not over 6.	Over 6.	Not reported.	Total.	Their present trades.	Other trades.
Barbers and hair dressers	1,175	133	153	605	187	21	.....	1	11	1,111	1,103	8
Wig makers and hairdressers	72	1	4	44	19	3	.....	.....	1	72	72	.....
Bakers	4,292	126	979	2,513	313	35	9	10	39	4,024	3,983	41
Surgical instrument and bandage makers	113	1	2	46	49	4	3	2	3	110	94	16
Coopers	879	10	114	484	169	65	14	4	8	868	866	2
Brewers	326	16	92	149	18	1	2	2	1	281	278	3
Well diggers	50	2	9	27	9	.....	1	1	.....	49	46	3
Bookbinders and paper-box makers	352	2	10	170	122	30	2	.....	3	339	339	.....
Brush makers	165	5	9	60	62	12	4	1	.....	153	148	5
Confectioners	272	2	10	185	53	6	2	.....	4	262	259	3
Roofers	673	21	97	423	71	13	4	8	5	642	640	2
Wire-drawers	1	.....	.....	1	.....	.....	.....	.....	.....	1	1	.....
Wood turners, pipe cutters, etc	385	8	30	198	109	28	3	1	2	379	376	3
Printers (book)	123	.....	3	31	53	14	.....	2	2	105	102	3
Printers (on stone, zinc, copper, etc.)	30	.....	.....	10	12	5	.....	.....	1	28	28	.....
Color printers	4	.....	.....	2	2	.....	.....	.....	.....	4	3	1
Dyers	106	3	8	66	17	2	.....	1	1	98	96	2
File cutters	63	.....	2	26	26	5	.....	.....	3	62	62	.....
Fitters (gas, water pipes, heating apparatus)	41	.....	1	33	4	2	1	.....	.....	41	28	13
Brass and copper molders	55	2	1	26	17	5	1	.....	1	53	50	3
Tanners	191	2	18	127	28	4	3	1	4	187	187	.....
Pewter, zinc, and metal molders	47	.....	3	18	17	3	2	.....	1	44	43	1
Glaziers	388	12	28	238	78	14	5	.....	1	376	374	2
Bell molders	1	.....	.....	.....	1	.....	.....	.....	.....	1	.....	1
Jewelry workers	141	.....	1	20	65	39	7	5	1	138	138	.....
Engravers, chasers	36	.....	1	3	22	8	1	1	.....	36	35	1
Glove makers	44	.....	1	15	24	4	.....	.....	.....	44	43	1
Hat and cap makers	123	3	7	54	45	6	2	.....	1	118	116	2
Comb makers	23	2	.....	12	4	3	.....	.....	.....	21	21	.....
Tinsmiths	836	5	13	451	296	45	11	2	5	828	823	5
Basket makers	1,325	143	410	532	114	27	12	9	10	1,257	1,248	9
Furriers	182	.....	1	86	78	16	1	.....	.....	182	180	2
Coppersmiths	142	.....	1	66	57	11	4	.....	2	141	141	.....
Sign and house painters, lacquerers	1,771	40	156	896	471	86	24	11	26	1,710	1,692	18
Masons	2,682	62	364	1,793	272	62	19	19	19	2,610	2,598	12
Butchers	3,365	107	601	2,154	223	44	3	7	24	3,163	3,139	24

DURATION OF APPRENTICESHIP OF MALE PROPRIETORS IN SKILLED TRADES—Continued.

Skilled trades.	Male proprietors.	Number who have served an apprenticeship of years specified.									Number who have served apprenticeships in—	
		1 or under.	Over 1, but not over 2.	Over 2, but not over 3.	Over 3, but not over 4.	Over 4, but not over 5.	Over 5, but not over 6.	Over 6.	Not reported.	Total	Their present trades.	Other trades.
Millers	1,351	39	198	682	67	16	7	5	29	1,043	1,016	27
Millwrights	58	.....	2	38	9	5	1	1	.....	56	53	3
Musical-instrument makers	40	.....	* 1	4	12	11	3	3	2	36	35	1
Pin and needle makers	18	1	1	8	6	2	.....	.....	.....	18	18	.....
Nailsmiths	203	19	36	40	21	10	1	.....	.....	127	125	2
Fringe makers	26	.....	.....	8	5	5	1	.....	1	20	20	.....
Saddlers and harness makers	1,095	3	22	752	251	52	4	.....	3	1,087	1,086	1
Ship carpenters	92	.....	.....	80	5	2	.....	.....	.....	87	86	1
Grinders (knives, scissors, tools)	1,713	12	37	276	1,098	209	23	1	35	1,691	1,689	2
Iron workers (not specialists)	780	3	29	516	190	22	3	6	4	773	767	6
House and locksmiths	187	.....	2	127	53	3	.....	.....	1	186	184	2
Safe makers	7	.....	1	4	2	.....	.....	.....	.....	7	6	1
Range makers	13	.....	2	7	3	.....	.....	.....	.....	12	12	.....
Ornamental iron workers	16	.....	.....	12	1	1	1	.....	.....	15	15	.....
Iron workers on vehicles	2	.....	.....	.....	1	.....	.....	.....	1	2	2	.....
Iron workers on machinery	41	.....	2	25	10	4	.....	.....	.....	41	41	.....
Iron turners	6	.....	.....	4	2	.....	.....	.....	.....	6	5	1
Tool makers	5	.....	.....	4	1	.....	.....	.....	.....	5	5	.....
Blacksmiths (not specialists)	2,511	7	136	1,757	420	132	10	11	18	2,491	2,483	8
Axle and spring makers	12	.....	.....	12	.....	.....	.....	.....	.....	12	12	.....
Anchor, anvil, and ship smiths	19	.....	1	11	4	2	1	.....	.....	19	19	.....
Shapers (façonschmiede)	1	.....	.....	1	.....	.....	.....	.....	.....	1	1	.....
Horseshoers and gunsmiths	570	2	36	430	68	20	1	3	7	567	566	1
Chainsmiths	5	.....	.....	3	2	.....	.....	.....	.....	5	5	.....
Cutlers	140	3	3	74	43	10	1	.....	2	136	135	1
Scythe and sickle smiths	2	.....	.....	1	.....	1	.....	.....	.....	2	2	.....
Toolsmiths	56	1	7	26	19	3	.....	.....	.....	56	55	1
Tailors	5,074	42	453	3,160	1,153	169	18	20	18	5,033	5,026	7
Chimney sweeps	121	.....	2	45	32	21	7	9	1	117	117	.....
Joiners (not specialists)	3,692	19	290	2,303	841	132	20	18	22	3,645	3,615	30
House joiners	546	3	32	347	129	23	4	2	5	545	543	2
Wooden toy and ornament makers	3	.....	.....	2	1	.....	.....	.....	.....	3	3	.....
Trunk makers	12	.....	.....	8	2	.....	.....	.....	.....	10	6	4
Cabinetmakers	12	.....	.....	7	4	1	.....	.....	.....	12	12	.....
Cabinetmakers, fancy inlaid and scroll work	3	.....	.....	2	.....	.....	.....	1	.....	3	3	.....
Pattern makers	15	.....	.....	9	5	.....	.....	.....	1	15	15	.....
Furniture makers	401	.....	22	247	108	11	2	.....	7	397	396	1
Floor carpenters	1	.....	.....	.....	1	.....	.....	.....	.....	1	1	.....
Coffin makers	19	.....	.....	6	10	1	1	.....	.....	18	18	.....
Chair makers	37	.....	6	18	7	3	2	.....	.....	36	36	.....
Loom makers	1	.....	.....	1	.....	.....	.....	.....	.....	1	1	.....
Wooden tool makers	4	.....	.....	2	2	.....	.....	.....	.....	4	4	.....
Shoe and slipper makers	9,346	68	920	5,589	2,127	409	83	36	38	9,270	9,254	16
Soap and candle makers	51	4	4	28	3	1	.....	.....	4	44	44	.....
Rope makers	181	.....	8	103	53	10	2	1	1	178	178	.....
Sieve makers	29	1	6	11	4	2	.....	.....	.....	24	22	2
Spur and screw makers and rifiers	57	.....	1	37	15	2	.....	.....	2	57	56	1
Umbrella and parasol makers	26	3	5	9	4	2	.....	1	.....	24	22	2
Toy and wood work finishers	7	1	1	.....	2	1	.....	.....	.....	5	3	2
Stonecutters	277	7	33	122	66	16	1	1	4	250	236	14

DURATION OF APPRENTICESHIP OF MALE PROPRIETORS IN SKILLED TRADES—Concluded.

Skilled trades.	Male proprietors.	Number who have served an apprenticeship of years specified.									Number who have served apprenticeships in—	
		1 or under.	Over 1, but not over 2.	Over 2, but not over 3.	Over 3, but not over 4.	Over 4, but not over 5.	Over 5, but not over 6.	Over 6.	Not reported.	Total.	Their present trades.	Other trades.
Stone setters	92	1	12	67	6	2	1	.....	1	90	89	1
Knitters and embroiderers	199	22	48	97	17	.....	.....	.....	2	186	182	4
Stucco workers	113	10	24	53	17	3	1	1	1	110	105	5
Paper hangers, decorators	272	.....	4	137	101	27	1	.....	.....	270	269	1
Potters	302	.....	7	137	89	50	14	2	2	301	300	1
Cloth makers	192	1	25	80	64	14	2	.....	.....	186	183	3
Watch and clock makers	566	7	15	122	304	80	10	4	2	544	542	2
Gilders	30	.....	1	9	12	5	1	.....	1	29	29	.....
Finishers of rough wooden ware	414	105	119	114	7	6	3	.....	7	361	353	8
Wagon makers	1,980	39	237	1,291	315	48	3	3	25	1,961	1,949	12
Weavers	4,494	819	1,116	2,132	173	56	22	26	38	4,382	4,365	17
Carpenters	1,571	22	163	1,125	148	16	7	10	24	1,515	1,502	13
Total	59,592	1,972	7,199	33,886	11,222	2,244	402	253	488	57,666	57,274	392

It is interesting to note that of the 59,592 male proprietors enumerated 97 per cent served apprenticeships. Of those who served apprenticeships, 3.4 per cent served one year or under, 12.5 per cent over one year but not more than two years, 58.8 per cent over two but not more than three years, 19.5 per cent over three but not more than four years, 3.9 per cent over four but not more than five years, 0.7 per cent over five but not more than six years, and 0.4 per cent over six years. In the case of 0.8 per cent the time was not reported.

Drucksachen der Kommission für Arbeiterstatistik: Hefte I, III.—Erhebung über die Arbeitszeit in Bäckereien und Konditoreien (I Theil, 1892; II Theil, 1893). Hefte II, V, VII.—Erhebung über Arbeitszeit, Kündigungsfristen und Lehrlings-Verhältnisse im Handelsgewerbe (I Theil, 1893; II Theil, 1894; III Theil, 1894). Hefte IV, VIII.—Erhebung über die Arbeitszeit in Getreidemühlen (I Theil, 1894; II Theil, 1895). Hefte VI, IX.—Erhebung über die Arbeits- und Gehalts-Verhältnisse der Kellner und Kellnerinnen (I Theil, 1894; II Theil, 1895).

The foregoing investigations were conducted by the commission on labor statistics of the German Empire. The duties of the commission, as defined in the official decree, are (1) to undertake the collection and preparation of statistics of labor, and to give an opinion on the results whenever requested by the imperial council or the chancellor of the Empire; (2) to make recommendations to the chancellor regarding the best means of carrying out this object.

In pursuance of these duties, the commission has thus far issued the nine reports above enumerated.

The first and third reports (Vols. I, III) are the results of an investigation concerning the hours of labor in bakeries and confectioneries, conducted by means of schedules of inquiry. The information collected relates chiefly to hours of labor for a regular day's work, and at extra time, in all bakeries and confectioneries; conditions of apprenticeship, contract of employment, tuition, length of service, education, and hours of labor of apprentices; housing conditions of employees; application of machinery in the bakery industries. The second part of the inquiry relates to an analysis of replies received from master-bakers' and journeymen's associations in reference to the introduction of the twelve-hour working day, the regulation of the hours of labor of apprentices and children, and Sunday rest. It also contains opinions in reference to the influence of the work of bakers upon their health.

The second, fifth, and seventh reports (Vols. II, V, VII) of the commission contain the results of an investigation covering inquiries regarding the hours of labor, notice given in case of discontinuance of employment, and conditions of apprenticeship of employees in the mercantile industries. The first part contains a series of statistical tables showing the number of employers and employees in each locality enumerated, the sex and standing of the latter (whether apprentices or journeymen), hours of opening and of closing the establishments, actual working hours at regular and at extra time for each sex, length required of notice of discontinuance of employment, and the number of employees boarding or lodging with their employers, or living in dwellings rented of the latter. The inquiry covers 8,235 establishments in 389 localities, and employing 23,725 persons. The second and third parts of this inquiry contain a presentation and discussion of replies to inquiries sent to mercantile associations throughout Germany regarding the extent to which the existing hours of labor may be regarded as detrimental to the physical and intellectual condition of employees; in what manner, under existing conditions, the time of labor may be reduced without being harmful to the business interests and to the public; the reasons for or against the enactment of a law fixing a minimum period of notice to be required for the severance of the relations of employers and their employees; and, finally, the advisability and practicability of adopting a uniform hour for closing establishments.

The fourth and eighth reports (Vols. IV, VIII) relate to similar inquiries regarding the hours of labor in flour mills. Statistics cover chiefly the hours of labor and Sunday rest in steam, water power, and wind mills.

The sixth and ninth reports (Vols. VI, IX) contain the results of inquiries regarding the labor and wage conditions of waiters and waitresses, the influence of the present working day upon the health, education, and domestic life of employees, the regulation of working hours

for adults and children, Sunday rest, gratuities, fines, and employment agencies. The replies were received from hotel and restaurant proprietors' associations and waiters' and cooks' unions. Statistics of sickness and mortality collated from local sick funds are also presented.

Die Belegschaft der Bergwerke und Salinen im Oberbergamtsbezirk Dortmund, nach der Zählung vom 16. Dezember 1893. Zusammengestellt von O. Taeglichsbeck, königlichen Berghauptmann und Oberbergamtsdirektor zu Dortmund. Erster Theil, 1895, xxxi, 461 pp.: Zweiter Theil, 1896, lxii, 663 pp.

This report is the result of a census enumeration taken by the central mining office of Dortmund with the cooperation of the Mine Operators' Association at Essen, on December 16, 1893. It relates to the economic and social conditions of the officials and employees at the mines and salt works within the jurisdiction of the central mining office (Oberbergamtsbezirk) at Dortmund. The territory covered by the report includes the provinces of Westphalia and Hanover, the principality of Siegen, the districts of Osnabrück and Aurich, the counties of Wittgenstein-Wittgenstein and Wittgenstein-Berleburg, the towns of Burbach and Neunkirchen, and in Rhenish Prussia, the subdivisions of Rees, Duisburg, Essen, and parts of Dusseldorf and Elberfeld.

Within this territory are found deposits of coal, iron, zinc, lead, sulphur, and salt. The chief mining industry is that of coal, over one-half of the total output of Germany coming from this section.

According to the enumeration of December 16, 1893, the total number of persons engaged in the mines, salt works, and mineral baths of the Dortmund district was 158,368. These were distributed as follows: 155,934, or 98.46 per cent, in 164 coal mines; 2,147, or 1.36 per cent, in 24 ore mines; 225, or 0.14 per cent, in 5 salt works; 62, or 0.04 per cent, at the Government mineral baths at Oeynhausen.

As the number of persons employed in other than coal-mining industries is comparatively insignificant, about 1½ per cent of the whole, the information is chiefly valuable as regards coal-mine workers. Concerning female labor, the enumeration shows that of the total employees of all the industries treated, only 27 were females. These were engaged at various mineral mines. There were no women engaged in any capacity at the coal mines and salt works.

The two volumes comprising this report consist mainly of statistical tables, but 93 out of a total of 1,217 pages being devoted to text. The figures are given in the greatest detail, each establishment being separately treated. A review of the more important facts is presented below.

In the establishments considered the ages of employees and officials vary from 14 to over 60 years, as shown in the following table:

AGE OF OFFICIALS AND EMPLOYEES.

Age (years).	Officials.	Engineers and firemen.	Actual mine workers.	Day laborers.	Other occupations.	Total.
14	11	137	982	313	513	1,956
15	16	168	1,479	488	631	2,782
16	12	97	3,930	309	228	4,576
17	20	100	4,913	317	139	5,489
18	13	88	5,712	367	138	6,318
19	20	77	6,230	356	128	6,811
20	11	51	4,784	276	112	5,234
21	17	69	4,156	260	87	4,589
22	27	48	3,097	202	92	3,466
23	51	78	4,713	301	139	5,282
24	56	116	5,136	374	156	5,838
25	85	100	5,118	336	170	5,809
26	80	137	5,037	294	167	5,715
27	111	141	5,164	293	198	5,907
28	131	131	4,747	257	165	5,431
29	141	134	4,751	284	175	5,485
30	140	151	4,525	277	187	5,280
31	133	126	3,920	283	167	4,629
32	144	140	3,656	279	162	4,381
33	163	160	3,675	264	148	4,410
34	170	143	3,727	276	170	4,486
35	187	154	3,410	250	166	4,167
36	177	155	3,183	250	148	3,913
37	164	154	2,725	226	107	3,376
38	141	139	2,508	226	133	3,147
39	165	152	2,533	228	112	3,190
40	165	161	2,598	237	121	3,282
41	158	139	2,389	247	125	3,058
42	165	147	2,325	251	113	3,001
43	153	163	2,202	189	120	2,827
44	160	153	2,091	210	121	2,735
45	157	133	1,873	193	112	2,468
46 to 47	242	276	2,696	403	157	3,774
48 to 50	332	345	3,565	580	236	5,058
51 to 55	589	479	3,749	794	307	5,918
56 to 60	286	281	1,602	565	191	2,925
Over 60	183	163	701	466	142	1,655
Total	4,976	5,586	129,602	11,721	6,483	158,368

The age of 19 years, which immediately precedes entry upon military service, is best represented, there being a much smaller number of employees of each age from 20 to 23 years, which are the ages of military service. After the period of military service, the age of 27 years is best represented. From that age onward there is an almost steady decrease in number for each succeeding year, especially in the case of mine workers.

The number of married employees is comparatively large when it is considered that over one-half of all employees were under 30 years of age. Of the 158,368 persons reported 91,648, or 57.87 per cent, were married; 2,466, or 1.56 per cent, were widowed and divorced, and 64,254, or but 40.57 per cent, were single.

STABILITY OF OCCUPATIONS.—This subject receives more attention than any other, and is illustrated by tables showing the number of officials and employees who follow the occupations of their fathers, the length of service in the same occupation of all officials and employees, and the number remaining in the same establishment during their *entire period of* service.

It is shown that 59,256, or 37.42 per cent, of the officials and employees in all the industries considered followed the same occupation as their fathers. In coal mining the per cent was greatest, being 37.60; in other mines it was 27.11 per cent, and in the salt works it was 16.89 per cent.

The percentage was greatest in sections where the industries were of longest duration. Thus, for instance, the percentage of coal mine employees whose fathers were also miners was, in South Dortmund, 47.17; in Hattingen, 52.06; and in Werden, 55.69, while in Gelsenkirchen, Recklinghausen, and Herne, districts in which coal mining is of more recent development, the percentages were, respectively, 28.36, 27.34, and 27.12.

The following table shows the length of service of officials and employees at their present occupations, and the number of these who remained in the same establishments during the entire period specified in each case:

YEARS OF SERVICE OF OFFICIALS AND EMPLOYEES AT THE SAME OCCUPATIONS AND IN THE SAME ESTABLISHMENTS.

Years of service.	Officials.		Engineers and firemen.		Actual mine workers.		Day laborers.		Other occupations.		Total.	
	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.
1	88	88	692	692	14,284	14,284	2,970	2,970	2,172	2,172	20,206	20,206
2	84	74	385	334	8,995	6,671	1,279	1,085	841	689	11,584	8,853
3	94	68	394	315	10,601	7,180	1,093	875	618	473	12,800	8,911
4	77	51	314	230	9,825	5,676	761	562	493	334	11,470	6,853
5	72	51	216	142	7,581	3,802	499	330	345	224	8,713	4,549
6	59	36	148	96	5,448	2,147	350	234	206	115	6,211	2,628
7	63	36	124	73	4,381	1,435	247	152	170	91	4,985	1,787
8	56	30	136	67	4,126	1,168	258	160	136	66	4,712	1,491
9	108	54	132	62	4,189	1,141	243	135	133	67	4,805	1,459
10	127	51	174	87	5,596	1,347	325	184	186	105	6,408	1,774
11	144	55	145	83	4,573	1,124	279	171	152	70	5,293	1,503
12	160	44	161	75	4,589	940	275	155	125	62	5,310	1,276
13	169	43	156	75	4,351	836	245	142	109	53	5,030	1,149
14	154	31	110	53	3,355	541	182	84	70	25	3,871	734
15	159	34	122	49	3,093	390	175	83	71	25	3,614	581
16	139	25	102	43	2,342	301	132	74	51	19	2,766	462
17	142	32	95	48	2,291	331	150	78	56	25	2,734	514
18	175	50	144	56	2,697	405	168	89	63	28	3,247	628
19	162	39	133	44	2,351	343	178	92	48	20	2,872	538
20	227	57	205	91	3,666	504	273	123	67	20	4,438	795
21	171	51	145	64	2,445	326	168	80	56	17	2,985	538
22	175	45	125	48	2,266	294	131	60	49	17	2,746	464
23	181	43	133	41	2,399	275	130	51	26	9	2,869	419
24	134	26	88	25	1,879	173	95	30	28	9	2,224	263
25	146	22	120	28	1,843	163	114	29	30	9	2,253	251
26	138	26	95	16	1,484	152	120	48	33	7	1,870	249
27	141	24	86	22	1,430	168	93	18	26	10	1,776	242
28	143	15	85	23	1,319	139	76	16	16	7	1,639	200
29	129	18	79	29	1,103	102	65	18	17	5	1,393	172
30	136	16	71	13	1,156	92	108	16	16	5	1,487	142
31	100	18	43	8	569	62	54	15	3	2	769	105
32	87	13	42	9	537	46	52	10	9	.....	727	78
33	88	13	50	7	526	50	51	15	7	3	722	88
34	63	13	33	7	387	40	40	6	6	1	529	67
35	93	13	49	10	381	41	57	10	9	.....	589	74
36	88	12	46	8	376	35	48	7	10	.....	568	62
37	93	14	49	13	280	28	42	4	5	.....	469	59
38	90	15	45	8	223	24	35	8	3	.....	396	55
39	66	8	28	6	182	15	34	4	3	2	313	35
40	56	6	23	5	186	7	30	7	5	1	300	26
41	39	3	9	1	78	4	19	2	3	.....	148	10
42	26	1	13	2	57	4	9	1	2	.....	107	8
43	31	6	9	1	46	2	14	1	1	1	101	11

YEARS OF SERVICE OF OFFICIALS AND EMPLOYEES AT THE SAME OCCUPATIONS AND IN THE SAME ESTABLISHMENTS—Concluded.

Years of service.	Officials.		Engineers and firemen.		Actual mine workers.		Day laborers.		Other occupations.		Total.	
	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.
44	13	2	6	1	35		10	3	1		65	6
45	22	2	7	1	28	2	17	6	2		76	11
46	13	1	8	2	16		7	1			44	4
47	14	2	4		12		4		1		35	2
48	9	1	2		7		4				22	1
49	5	1	2		3		1	1	1		12	2
50	9		3		7		4	1	1		24	1
51	6	1			4		2	2			12	3
52	5						2				7	
53	6				1		1				8	
54	2	1			1				1		4	1
55	1				1		1		1		4	
56	2	1									2	1
57	1										1	
58					1						1	
59	1						1				2	
Total.	4,976	1,382	5,586	3,113	129,602	52,810	11,721	8,248	6,483	4,788	158,368	70,341

As the industries in this section are largely in a stage of rapid development, a greater number of employees are found to have been engaged in their present occupations for one year or under than for any other period of service. There is an almost steady decrease for each succeeding period. The only decided exception is found in the number employed seven, eight, and nine years. The abnormal decrease shown here is due to military service, for if the persons mostly entered upon their occupations at the minimum age, 14 years, they would have attained the ages of 21, 22, and 23 years, respectively, which ages, as has been shown, correspond to the period of military service.

Of all the employees and officials, 70,341, or 44.42 per cent, remained in the service of the same establishments during the entire time of employment at their present occupations.

The enumeration showed that out of the total number of employees and officials 154,517, or 97.57 per cent, had completed their elementary education. This percentage would undoubtedly have been greater were it not for the large influx of foreigners, which is always present where industries are rapidly developing. In some other sections of this mining district, where the industries are older, the illiterates comprise less than one-half of 1 per cent.

In the accompanying table is given a general review of the housing conditions of the employees and officials as regards house ownership and tenancy:

OFFICIALS AND EMPLOYEES OWNING HOUSES AND LIVING IN THEIR OWN AND IN RENTED HOUSES AND LODGINGS.

Officials and employees in—	House owners.	Living in their own houses.	Living in rented houses, lodgings, etc.						Total officials and employees.
			Tenants of employers.	Tenants of others.	Inmates of lodging houses.	Lodged with private families.	Lodged with parents.	Total.	
Coal mines:									
Married	14,532	.....	2,327	.....	431	3,564	.....	.....	89,953
Single	770	.....	73	.....	494	27,604	.....	.....	63,580
Widowed and divorced	394	.....	60	.....	22	641	.....	.....	2,401
Total	15,696	13,417	2,460	73,018	947	31,809	34,283	142,517	155,934
Ore mines:									
Married	381	.....	35	.....	7	17	.....	.....	1,467
Single	12	.....	.....	.....	19	168	.....	.....	623
Widowed and divorced	11	.....	2	.....	2	19	.....	.....	57
Total	404	389	37	1,060	28	204	429	1,758	2,147
Salt works:									
Married	73	70	43	.....	.....	.....	.....	.....	181
Single	2	2	4	.....	.....	4	.....	.....	37
Widowed and divorced	6	5	1	.....	.....	1	.....	.....	7
Total	81	77	48	66	.....	5	29	148	225
Mineral baths:									
Married	30	30	3	.....	.....	.....	.....	.....	47
Single	.....	.....	.....	.....	.....	3	.....	.....	14
Widowed and divorced	1	1	.....	.....	.....	.....	.....	.....	1
Total	31	31	3	14	.....	3	11	31	62
Total officials and employees	16,212	13,914	2,548	74,158	975	32,021	34,752	144,454	158,368

It is interesting to note the comparatively large proportion of house owners, namely, 16,212 or 10.24 per cent. These, however, did not all occupy their own homes, 14.17 per cent of their number living in rented houses or lodgings. Of the total officials and employees, 8.79 per cent lived in their own homes, 1.61 per cent were tenants of their employers, 46.83 per cent lived in other rented houses, 0.61 lived in lodging houses, 21.94 lived with their parents, and 20.22 per cent boarded with strangers. Seven hundred and eighty-four of the house owners were single men. On an average, each family occupied three rooms.

The distance from residence to place of work is shown for each person in the accompanying table:

DISTANCE BETWEEN RESIDENCE AND PLACE OF WORK OF OFFICIALS AND EMPLOYEES.

Distance of residence from place of work.	Coal mines.		Ore mines.		Salt works.		Mineral baths.		Total.	
	Persons.	Per cent.	Persons.	Per cent.	Persons.	Per cent.	Persons.	Per cent.	Persons.	Per cent.
2.5 miles and under	133,780	85.79	1,382	64.37	207	92.00	59	95.16	135,428	85.51
Over 2.5 and not exceeding 4.7 miles	18,969	12.16	663	30.88	13	5.78	3	4.84	19,648	12.41
Over 4.7 and not exceeding 6.8 miles	2,641	1.70	93	4.33	2	0.89	.....	.....	2,736	1.73
Over 6.8 and not exceeding 9.3 miles	332	0.21	5	0.23	.....	.....	.....	.....	337	0.21
Over 9.3 miles	212	0.14	4	0.19	3	1.33	.....	.....	219	0.14
Total	155,934	100.00	2,147	100.00	225	100.00	62	100.00	158,368	100.00
Persons living over 4.7 miles:										
In their own houses	630	19.78	14	13.73	1	20.00	.....	.....	645	19.59
In rented dwellings	1,205	37.83	55	53.92	4	80.00	.....	.....	1,264	38.40
Lodging with parents	697	21.89	20	19.61	.....	.....	.....	.....	717	21.78
Lodging with strangers	653	20.50	13	12.74	.....	.....	.....	.....	666	20.23
Total living over 4.7 miles	3,185	100.00	102	100.00	5	100.00	.....	.....	3,292	100.00
Average distance of residence from place of work (miles)	1.5		2.2		1.4		1.4		1.5	

It appears from the preceding table that as a rule the employees live within walking distance of their places of work, 85.51 per cent having not over 4 kilometers (2.5 miles) to go. The average distance of all was 2.4 kilometers (1.5 miles). Of those who lived so far distant as to be compelled to use conveyances, namely, 7.5 kilometers (4.7 miles) and over, only 19.59 lived in their own homes. Nearly twice the number, 38.40 per cent, lived in rented dwellings, 21.78 per cent boarded with their parents, and 20.23 per cent boarded with strangers.

The next table shows the number of persons depending upon officials and employees for their support.

PERSONS DEPENDENT UPON OFFICIALS AND EMPLOYEES.

Industries.	Wives.	Children.						Parents and grandparents.	Brothers and sisters.	Total dependents.	Total officials and employees.	Total supported by the industries.
		Under 14 years of age.		Over 14 years of age.		Total.	Wholly dependent.					
		Sons.	Daughters.	Sons.	Daughters.							
Coal mining	89,955	114,101	109,051	35,290	32,047	290,489	237,496	24,776	6,739	411,959	155,934	567,893
Ore mining	1,466	1,849	1,869	875	784	5,377	4,054	545	118	7,506	2,147	9,653
Salt works	180	218	204	107	93	622	522	36	8	846	225	1,071
Mineral baths	47	55	72	28	29	184	164	9	1	241	62	303
Total	91,648	116,223	111,196	36,300	32,953	296,672	242,236	25,366	6,866	420,552	158,368	578,920

The average number of persons depending upon an official or employee was 2.66. Of the dependents, 21.79 per cent were wives, 70.53 per cent children, 6.03 per cent parents and grandparents, and 1.63 per cent brothers and sisters. Over three-fourths of the dependent children were under 14 years of age.

ANNUAL STATISTICAL ABSTRACTS.

In the first issue of the Bulletin a brief note was given indicating the Governments of the world which had created statistical bureaus, the sole or special object of which was to investigate and report on the conditions under which labor is prosecuted. In all cases the creation of these bureaus is of recent date. The nations of Europe and America have not waited, however, for the establishment of these special bureaus before entering upon the collection and presentation of statistical information concerning labor and social conditions, and the reports of such bureaus are by no means the sole source of statistical information concerning these questions. The various departments of the different Governments, especially those departments concerned with industry, commerce, or public works, have sooner or later found it necessary to organize more or less complete statistical services, and within the field of their investigations it has often been advisable to include the collection of information concerning matters purely social. Scattered through the various reports of the independent departments or bureaus of all Governments there is, therefore, information of a strictly statistical character of immediate and important bearing upon labor conditions.

The great number and variety of these publications and the greater or less difficulty in obtaining access to them renders it almost impossible to gain even a knowledge of their existence, much less a familiarity with their nature and contents. Recognizing this, practically every nation of importance has undertaken the publication of an annual statistical abstract in which are presented in summary form the most important statistical tables appearing in all of the various official reports of the Government. These abstracts, therefore, do not in themselves represent original investigations, but only brief summaries of the results of inquiries made by various bureaus. In the great majority of cases where information is sought, a reference to these compilations is sufficient.

The following, made from the latest accessible abstracts, is given in order to show for at least the more important nations the periods during which such abstracts have been issued and in a general way the nature of the subjects concerning which information is given.

In this presentation no effort is made to enter into particulars. Only the most general headings are employed. Thus, for instance, the single caption "Agricultural Statistics" is made to embrace all the information bearing in any way upon agricultural matters.

BELGIUM.

Annuaire Statistique de la Belgique [Ministère de l'Intérieur et de l'Instruction Publique].

Published since 1870.

CONTENTS.

- Area and population:
  - Territorial extent, division of property.
  - Population, ages, nationality, education, occupations, etc.
  - Houses.
  - Families.
  - Births, deaths, marriages, divorces.
  - Immigration and emigration.
- Political statistics (elections).
- Education.
- Publications, libraries, and schools of art and music.
- Savings and benevolent institutions:
  - Savings banks.
  - People's banks (cooperative societies).
  - Pawnshops.
  - Mutual aid societies.
  - Employment bureaus.
  - Workingmen's houses.
  - Miners' relief and pension funds.
- Religious statistics.
- Statistics of insane and idiotic.
- Medical profession.
- Administration of justice:
  - Court records.
  - Crime.
- Administration of justice—Concluded.
  - Jails, reformatories, etc.
- Army.
- Government finance (receipts, expenditures, debt, etc.).
- Production:
  - Agriculture and forestry.
  - Mines and mining (includes statistics of number of employees, wages, accidents, etc.).
  - Manufactures (includes statistics of number of employees, wages, accidents, boards of arbitration, etc.).
- Trade and commerce:
  - Foreign commerce (imports, exports, customs receipts).
  - Navigation.
  - Fisheries.
- Wealth.
- Insurance.
- Financial institutions (banks, currency).
- Transportation:
  - Railways (includes statistics of accidents).
  - Tramways.
  - Waterways.
- Postal, telegraph, and telephone services.

The authorities are indicated by footnotes.

HOLLAND.

Jaarcijfers [uitgegeven door de Centrale Commissie voor de Statistiek]. *Annuaire Statistique des Pays-Bas* [Publié par la Commission Centrale de Statistique].

Published since 1881.

CONTENTS.

- Area.
- Meteorology.
- Population:
  - Houses.
  - Families.
  - Births, deaths, marriages, divorces.
  - *Emigration.*
- Defective classes (blind, deaf and dumb, etc.).
- Education.
- Economic statistics:
  - Occupations.
  - Prices of commodities.
  - Public charity.

CONTENTS—concluded.

FRANCE.

Annuaire Statistique de la France [Office du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes].

Published since 1878.

CONTENTS.

GREAT BRITAIN.

Statistical Abstract for the United Kingdom [Commercial, Labor, and Statistical Department, Board of Trade].

Published since 1853.

CONTENTS.

Government receipts, expenditures, debts.
Imports and exports.
Finance:
- Bullion and specie.
- Coinage.
- Accumulative Government stocks.

Transshipments.
Prices of products, imports, and exports.
Production:
- Agriculture.
- Fisheries.
- Textiles.
- Mines.

Shipping.
Transportation:
- Railways.
- Tramways.

Joint-stock companies.
Banking:
- Savings banks.
- Bank of England.
- Clearing house, etc.

Provident institutions:
- Building societies.
- Industrial and provident societies.
- Life assurance.

Postal service.
Population.
Births, deaths, and marriages.
Emigration and immigration.
Army and police service.
Education.
Administration of justice:
- Crime.
- Bankruptcy.
- Patents and trade-marks.

Wrecks and lives lost.

GERMANY.

Statistisches Jahrbuch für das Deutsche Reich [Kaiserliches statistisch Amt].

Published since 1880.

CONTENTS.

Area and population:
- Territorial extent of the German States.
- Population by age, sex, place of birth, and religion.
- Marriages, births, and deaths.
- Emigration.

Production:
- Agriculture and forestry.
- Mines and mining.
- Manufactures.

Trade and transportation:
- Internal commerce.
- Foreign commerce.
- Railways.

Postal and telegraph services.
Consumption and prices:
- Consumption of products.

Consumption and prices—Concluded.
- Wholesale prices.

Government finance (receipts, expenditures, debts, etc.).
Administration of justice:
- Court records.
- Crime.
- Bankruptcy.

Workingmen's insurance:
- Sick-benefit insurance.
- Accident insurance.
- Invalid and old-age insurance.

German colonies.
Parliamentary elections.
Army and navy.
Meteorological data.
Medical statistics.

An appendix contains a list of sources of information and a series of graphic charts.

AUSTRIA.

Oesterreichisches statistisches Handbuch für die im Reichsrathe vertretenen Königreiche und Länder [k. k. statistische Central-Commission].

Published since 1882.

CONTENTS.

Area and population:
- Territorial extent, division of property.
- Population, ages, places of birth, domicile, sex, religion, etc.
- Marriages, births, and deaths.
- Immigration and emigration.

Production:
- Agriculture and forestry (includes prices of agricultural products and wages).
- Mines and mining (includes number of employees, accidents, and benevolent institutions).
- Manufactures (includes workingmen's accident and sick-benefit insurance).

Trade and transportation:
- Fisheries.
- Foreign commerce.
- Waterways.
- Railways (includes statistics of accidents).

Postal, telegraph, and telephone services.
Education.
Religion.
Health service and benevolent institutions:
- Physicians, surgeons, and apothecaries.
- Hospitals
- Asylums for the insane, blind, deaf and dumb, and foundlings.
- Causes of death.
- Benevolent institutions.

Societies.
Business corporations.
Administration of justice:
- Court records.
- Crime.
- Prison service.

Financial institutions and Government finance:
- Banks.
- Currency.
- Government receipts, expenditures, and debt.

Stock quotations.
Army and navy.
Newspapers and other periodicals.
Damages by fire and hail.

SWITZERLAND.

Statistisches Jahrbuch der Schweiz [Statistisches Bureau des eidg. Departements des Innern]: *Annuaire Statistique de la Suisse* [Bureau de Statistique du Département Fédéral de l'Intérieur].

Published since 1891.

CONTENTS.

Area and population:
- Territorial extent.
- Population.
- Marriages, births, divorces, deaths, etc.
- Emigration.

Production:
- Agriculture.
- Forestry.
- Pisciculture.
- Mining.
- Manufactures.

Postal, telegraph, and telephone services.
Transportation:
- Railways.
- Tramways.
- Steam navigation.

Commerce, domestic and foreign (includes income from customs duties, etc.)
Insurance (life, accident, marine, and fire).
Banks.
Prices of food products.
Hygiene, sanitary police, and assistance:
- Asylums for epileptics, insane, alcoholism, etc.
- Hospitals.
- Diseases.

CONTENTS—concluded.

ITALY.

Annuario Statistico Italiano [Ministero di Agricoltura, Industria e Commercio, Direzione Generale Della Statistica].

Published since 1878.

CONTENTS.

The authorities are given in connection with each chapter.

RUSSIA.

Annuaire Statistique de la Russie [Publication du Comité Central de Statistique, Ministère de l'Intérieur].

Published since 1882.

CONTENTS.

- Area and population:
  - Territorial extent.
  - Population.
  - Marriages, births, and deaths.
  - Emigration.
- Health service:
  - Hospitals.
  - Physicians, apothecaries, etc.
  - Number of blind.
  - Epidemics.
- Political statistics:
  - Elections.
  - Officials and members of assemblies.
  - Rural police.
- Insurance (fire, marine, and life).
- Production:
  - Agriculture (includes statistics of wages and prices).
  - Manufactures (includes statistics of employees and accidents in the metal industry).
- Production—Concluded.
  - Mines.
- Trade and commerce:
  - Number and tonnage of vessels.
  - Imports and exports.
- Coinage and currency.
- Transportation (railways).
- Postal, telegraph, and telephone services.
- Government finance (receipts, expenditures, public debt, etc).
- Banks and savings institutions.
- Real estate:
  - Peasant proprietorship.
  - Mortgage debts.
- Publishing houses, libraries, reading rooms, etc.
- Churches, convents, etc.
- Military statistics.
- Education.
- Criminal statistics.
- Meteorological data.

NORWAY.

Statistisk Aarbog for Kongeriget Norge [Udgivet af Det Statistiske Central-Bureau]: *Annuaire Statistique de la Norvége.*

Published since 1879.

CONTENTS.

- Area and population:
  - Territorial extent.
  - Population by sex, age, conjugal condition, etc.
  - Marriages, births, and deaths.
  - Emigration.
- Health service:
  - Hospitals.
  - Causes of deaths.
  - Diseases and epidemics.
- Administration of justice:
  - Court records.
  - Crimes.
  - Failures.
- Public assistance.
- Education.
- Production:
  - Agriculture and forestry.
  - Manufactures (includes statistics of wages).
  - Fisheries.
  - Mining.
- Commerce and navigation (imports, exports, customs duties).
- Transportation:
  - Public roads.
  - Railways.
- Postal and telegraph services.
- Banking institutions.
- Fire and marine insurance.
- Finance (local and national Government receipts, expenditures, debts, etc.).

SWEDEN.

Sveriges Officiela Statistik i Sammandrag [Statistisk Tidskrift utgifven af Kungl. Statistiska Centralbyrån].

Published since 1860.

CONTENTS.

Area and population:
- Territorial divisions.
- Population by sex, age, conjugal condition, religious persuasion, etc.
- Marriages, births, and deaths.
- Immigration and emigration.
- Occupations by sex.
- Blind, deaf and dumb, and insane.

Education.
Administration of justice:
- Court records.
- Crimes and misdemeanors.
- Prison service.

Public health.
Statistics of pauperism and public charities.
Production:
- Agriculture.

Production—Concluded.
- Forestry.
- Manufactures.
- Mining.

Commerce and navigation:
- Tariff rates.
- Foreign commerce.
- Prices.
- Pilotage, life-saving and light-house service.

Transportation (railways).
Postal, telegraph, and telephone services.
Government finance (receipts, expenditures, debts, etc.).
Banks.
Election statistics.
Wages.

DENMARK.

Danmarks Statistik; Statistisk Aarbog [Udgivet af Statens Statistiske Bureau]: *Statistique du Danemark; Annuaire Statistique* [Publié par le Bureau de Statistique de l'État].

Publication commenced in 1896.

CONTENTS.

Sources of information.
Money, weights, and measures.
Area and population:
- Territorial divisions.
- Population by sex, age, conjugal condition, place of birth, religion, etc.
- Births, marriages, and deaths.
- Emigration.
- Occupations according to sex.

Agricultural statistics (including prices of cereals).
Manufactures.
Imports and exports.
Production of brandy, beer, artificial butter, and beet sugar.
Production of principal articles of consumption.
Navigation.
Fisheries.
Shipwrecks.
Transportation (railways).
Postal and telegraph services.
Finance:
- Banks.
- Joint-stock companies.
- Mortgage statistics.
- Pawnshops.
- Insurance (fire, marine, and life).

Administration of justice.
Education.
Publications.
Subsidies for old-age pensions.
Mutual aid societies.
Recruitment of army.
Election statistics.
Finances of the communes.
Finances of the State.
Meteorology.

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, will be continued in successive issues, dealing with the decisions as they occur. All material parts of the decisions are reproduced in the words of the courts, indicated, when short, by quotation marks, and when long by being printed solid. In order to save space immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

CONSTITUTIONALITY OF ACT PROVIDING FOR ATTORNEYS' FEES IN SUITS FOR WAGES.—The constitutionality of the act of June 1, 1889, of Illinois, providing for taxing attorneys' fees as costs in actions brought by servants for wages which they have previously demanded in writing, was drawn in question in the case of Vogel et al. *v.* Pekoc (Northeastern Reporter, vol. 42, p. 386), and its validity was sustained by the supreme court of the State on June 15, 1895, the opinion of the court being delivered by Chief Justice Craig.

A petition for rehearing was filed which emphasized the previous contention that the act in question is a partial and special statute, working deprivation of property without due process of law, and therefore unconstitutional, and reliance was placed on decisions in a number of cases by the Illinois supreme court adverse to the constitutionality of certain legislative enactments as sustaining the position taken. On the rehearing, October 28, 1895, the court again sustained the validity of the law, Judge Magruder dissenting, and in their opinion said:

Those cases do not, however, control the present case, or decide the question here involved. Without discussing separately the facts of the cases relied upon, it may be said generally, that in each of those cases a principal and controlling question was the right of miners of coal (no less than their employers) to make contracts regulating the time and manner of the payment of wages and the method of computing such wages, and in each case cited a law restricting in some manner this important right of contract was held invalid.

The statute here in question interferes with no one's right to contract. It embraces a well defined class of cases and persons, not singled out, as is contended, wholly without reason and arbitrarily; but upon grounds which may, we think, properly serve as a basis for valid legislative action. Those to whom the wages of labor are due, and who, after demand in writing of a sum no greater than that subsequently recovered, are compelled to establish, and do establish, their rights as demanded by judgment of court, are within the provisions of the act; and we can not say that this classification is so arbitrary and unreasonable, and the law so partial and unequal, as to be beyond legislative

discretion and power. Indeed, if this law were to be held unconstitutional for the reasons assigned, then many other acts long in force in this State, hitherto deemed to be salutary, and against which no constitutional objection has been heard, would certainly fall with it. Why, for instance, should the seller of materials for a building have by law a lien for their price, not only upon the specific things sold, but upon the whole structure, with the land it stands on, while the seller of a horse, a piano, or a cornsheller is denied any lien even on the specific thing sold? Why should he whose labor constructs a house be secured by a lien on his product, while he who raises a crop must look only to the personal responsibility of his hirer? Surely, it could be said the lien law makes classes of beneficiaries quite as arbitrary in character as that marked out to receive benefit by the act under discussion.

Again, why should the wages of a defendant, who is head of a family, to an amount not exceeding $50, be exempt from garnishment (Hurds St., p. 783, sec. 14), while sums due other defendants are protected by no such exemption? And why, again, it might be asked, should heads of families earning wages be made the subject of advantageous provisions not applied to all other wage earners if not to all other persons? The general exemption law also makes heads of families a distinct class, who may claim as exempt $300 worth more property than others are allowed, while a further section (id., p. 727, sec. 4) declares that where a judgment is for the wages of a laborer or servant, and noted by the court as such, no personal property whatever shall be free from levy, whatever the estate or condition of the debtor. An analogous case for this purpose is found in the provisions of the general assignment law that "all claims for the wages of any laborer or servant which have been earned within three months next preceding the making of the assignment," etc., "be preferred and first paid to the exclusion of all other demands" (id., p. 166, sec. 6). It is difficult to see how any of these statutes, and many similar ones which might be named, could be sustained if the strict rule of constitutional validity, so strenuously urged in this case, were applied to them.

In dissenting from the foregoing opinion Judge Magruder cited the case of Coal Co. *v.* Rosser (41 N. E., 263), in which the supreme court of Ohio had occasion to consider and condemn a statute similar to the one sustained by his colleagues. He said that the opinion in that case expressed what seemed to him to be the correct view of the subject, and made the following quotation therefrom as sufficiently indicating the reasons for his dissent:

Upon what principle can a rule of law rest which permits one party, or class of people, to invoke the action of our tribunals of justice at will, while the other party, or another class of citizens, does so at the peril of being mulct in an attorney's fee, if an honest but unsuccessful defense should be interposed? A statute that imposes this restriction upon one citizen, or class of citizens, only denies to him or them the equal protection of the law. It is true that no provision of the constitution of 1851 declares in direct and express terms that this may not be done; but nevertheless it violates the fundamental principles upon which our Government rests, as they are enunciated and declared by that instrument in the bill of rights. The first section of the constitution declares that the right to acquire, possess, and protect property is inalienable, *and* the next section declares, among other things, that "government is *instituted for* the equal protection and benefit" of every person, while

section 16 of article 1 provides that "all courts shall be open, and every person, for an injury done him in his lands, goods, person, or reputation, shall have remedy by due course of law, and justice shall be administered without denial or delay." The right to protect property is declared, as well as that justice shall not be denied, and everyone is entitled to equal protection. Judicial tribunals are provided for the equal protection of every suitor. The right to retain property already in possession is as sacred as the right to recover it when dispossessed. The right to defend against an action to recover money is as necessary as the right to defend one brought to recover specific real or personal property. An adverse result in either case deprives the defeated party of property.

If the general assembly has power to enact the statute in question, it could also enact one providing that lawyers, doctors, grocers, or any other class of citizens might make out their accounts, demand in writing their payment within a short time, which, if not complied with, would entitle the plaintiff to an attorney fee in addition to his claim, if he recovered the amount demanded. We do not think the general assembly has power to discriminate between persons or classes respecting the right to invoke the arbitrament of the courts in the adjustment of their respective rights. The legislative power to compel an unsuccessful party to an action—generally the defendant—to pay an attorney fee to his opponent has received the attention of a number of courts of last resort as well as laws which impose as a penalty double damages or some similar penalty for some wrongful or negligent act injurious to another. Where the penalty has been imposed for some tortious or negligent act, the statute has generally, though not always, been sustained; but, on the contrary, where no wrongful or negligent conduct was imputed to the defeated party, any attempt to charge him with a penalty has not prevailed. [At this point in the decision a number of cases are cited as sustaining the foregoing propositions.] Various phases of this subject have received attention in the foregoing cases, as well as in some others to which we do not deem it necessary to refer. The general tendency of these authorities is toward the result which we have reached; but whether they do or do not support our conclusions, we are satisfied that the fundamental principles of government declared by our bill of rights clearly and unequivocally prohibit legislation of the character of that involved in this case.

CORPORATIONS—LIABILITY OF STOCKHOLDERS FOR WAGES.—Section 4161c8 of volume 3, Howell's Annotated Statutes of Michigan, provides that stockholders of manufacturing corporations "shall be individually liable for all labor performed for such corporations, which said liability may be enforced against any stockholder by action founded on this statute, at any time after an execution shall be returned unsatisfied in whole or in part against the corporation," etc.

Under this statute suit was brought before a justice of the peace by Ralph Kamp against Peter Wintermute, a stockholder in the Cheesman and Kelly Manufacturing Company, to recover for personal work and labor performed by Kamp for the company before Wintermute became a stockholder therein. The justice gave judgment for Kamp, and the cause was removed to the circuit court of Muskegon County by

writ of certiorari and there the judgment of the justice was reversed. The case was then carried to the supreme court of Michigan, which affirmed the judgment of the circuit court, holding that the statute in question does not make a stockholder liable for labor performed before he became a stockholder.

The opinion of the supreme court was delivered by Judge Long, and is published in volume 65 of the Northwestern Reporter, page 570. In the course of the opinion Judge Long said:

It is conceded in this court that the defendant was not a stockholder in the corporation at the time the labor was performed; but, as shown on the trial before the justice, he was a stockholder at the time suit was commenced. The claim is that those who are stockholders in a corporation at the time of the commencement of an action against the corporation upon the labor claims are liable upon such demands, although not stockholders at the time corporate liability accrued; that such stockholders impliedly assume all the obligations which rested upon former holders as members of the company, and are liable to the same extent as the former holders.

Whether statutory liability attaches to a stockholder in respect of debts contracted before he became a member of the corporation, is a question turning upon the words of the statute. While the persons who were stockholders at the time the debt was contracted may be held liable, we think the liability is confined to such stockholders, and not to those who thereafter purchase. The stockholders mentioned in this section of the statute must be construed to mean those who were such at the time the liability attaches to the corporation. The statutes of many of the States prescribe when such liability is to attach. Our statute fixes no such time by any express words, but, by necessary implication, was not intended to apply to one who became a purchaser after liability was incurred.

The general doctrine seems to be that a stockholder does not avoid a statutory liability to creditors who were such at the time he transfers his stock; and there is good reason for holding the rule being thus settled that the transferee does not take the stock subject to such statutory liability.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—In the case of Caron *v.* Boston and Albany Railroad Company, the superior court of Hampden County, Mass., gave judgment for damages against the railroad company in favor of Marie Caron for the death of her husband, an employee of said company, resulting from injuries received in a collision caused by the alleged negligence of some person who had charge or control of a certain train in shifting it over upon the track where Caron was at work.

The railroad company carried the case, on exceptions, to the supreme judicial court of Massachusetts, and the exceptions were sustained by that tribunal on November 26, 1895. The opinion of the court (reported in vol. 42 of the Northeastern Reporter, p. 112) was delivered by Judge Morton.

The action arose under chapter 270 of the acts of 1887 of Massachusetts, section 1, which provides as follows: "Where, after the passage of this act, personal injury is caused to an employee, who is himself in the exercise of due care and diligence at the time, (1) by reason of any defect in the condition of the ways, works, or machinery connected with or used in the business of the employer, which arose from or had not been discovered or remedied owing to the negligence of the employer or of any person in the service of the employer and intrusted by him with the duty of seeing that the ways, works, or machinery were in proper condition, or * * * (3) by reason of the negligence of any person in the service of the employer who has the charge or control of any signal, switch, locomotive, engine, or train upon a railroad, the employee, or in case the injury results in death, the legal representative of such employee, shall have the same right of compensation and remedies against the employer as if the employee had not been an employee of nor in the service of the employer, nor engaged in its work."

In the course of the opinion sustaining the exceptions of the railroad company, Judge Morton said:

The defendant contends that the plaintiff's intestate was not in the exercise of due care. There was nothing to show that he had any warning or knowledge that the cars which caused the collision were coming down the track, or that he could see them; and, for aught that appears, he was engaged in the discharge of his duty when injured. Due care may be inferred from the absence of negligence as well as from positive acts of diligence. We think that there was evidence which justified the jury in finding that he was in the exercise of due care.

The defendant contends further that the plaintiff's intestate assumed the risk. But we do not think it fairly can be held that he assumed the risk of accident from cars which were sent in, as there was evidence tending to show that the colliding cars were moving at the rate of ten or twelve miles an hour, and with such force as to throw off the track one car of the train which Collins [the conductor] and his men were making up, and to break the draw bars of others. Such a manner of doing the business would be unreasonable, and not within any risk which the plaintiff's intestate assumed.

The defendant also contends that the cars which were switched onto the track where Caron was working did not constitute a train at the time of the accident. It is not easy to define what, under all circumstances, would constitute a train, within the meaning of the statute. A locomotive, with one or more cars attached to it, with or without passengers or freight, in motion upon a railroad from one point to another by means of power furnished by the locomotive, would undoubtedly constitute a train. So it would if the steam was shut off from the locomotive and the train was moving by its own momentum. The word "train" as used in the railroad act (Pub. St., c. 112) generally signifies cars in motion. Usually the power would be furnished by a locomotive. But whether a number of cars coupled together and in motion, and forming one connected whole, do or do not constitute a train, does not depend, we think, upon whether a locomotive engine is attached to them at the time, and they are moved by the power thus supplied. The liability to accident for which St. 1887, c. 270, was

designed to furnish a remedy would be the same in kind, though perhaps not so great in degree, whether the motive power was furnished by a locomotive attached to the cars or in some other manner. And it seems to us that a number of cars, coupled together as these were, forming one connected whole and moving from one point to another upon a railroad, in the ordinary course of its traffic, under an impetus imparted to them by a locomotive, which, shortly before the accident, had been detached, constitute a train within the meaning of the statute.

The next and more difficult question is whether either of the two brakemen or Mozier, the foreman of the switching gang, was in "the charge or control" of the train when the accident occurred. The words "the charge or control" do not seem to have received a final construction anywhere. The implication of our own decisions, so far as they can be said to have given rise to one, is that they are to be regarded, not, perhaps, as synonymous, but as explanatory of each other, and as used together for the purpose of describing more fully one and the same thing; and we think that this is the better construction. If "control" is one thing and "charge" is another, then, inasmuch as to some extent every brakeman upon a train would have "control" of it, every employee injured by an accident resulting from the carelessness of a brakeman would have a right of action against the corporation which employed him, and the defense of common employment as to brakemen would be done away with, even though the brakeman might be acting under an immediate superior. The statute is to be fairly construed, and, while it removes the defense of common employment in some cases, it does not extinguish it altogether; and we do not think that the legislature intended that it should be abolished in all cases where injuries were sustained by the carelessness of a brakeman. We think, therefore, that by the words, "any person * * * who has the charge or control," is meant a person who, for the time being at least, has immediate authority to direct the movements and management of the train as a whole and of the men engaged upon it. It is not necessary that the person in charge or control should be actually upon the train itself. On the other hand, the mere fact that a laborer or brakeman is put in such a position that for the moment he physically controls and directs its movements under the eye of his superior does not constitute him a person in "the charge or control" of the train, though there may be circumstances under which he would have such charge or control. It is possible that more than one person may have "the charge or control" of a train at the same time. The case of the engineer is expressly provided for, and it is not likely that any negligence of his which would affect the train would not be negligence in the management of the locomotive engine of which at the time he had "the charge or control."

Applying these principles to the case before us, we do not think that either O'Brien or Desloury had "the charge or control" of the train as it went onto the side track, and after the engine and caboose had been detached, but that they were fellow-servants of the plaintiff's intestate. They certainly had not before that, and after it they were still acting, as before, under the supervision and direction of Stickles, the conductor, who was on the ground or in the caboose, and had at no time given up the direction or control. The duty of each was to take care of the brakes on the cars at his own end of the train, and to stop it seasonably, in conjunction with the other, when it had cleared the No. 6 switch. They did not have the charge, and, except in a very limited sense, and one, as we think, not meant, they did not have the control. We doubt, also, whether, quoad this train, Mozier, the foreman of the

switching gang, could be said to have had "the charge or control." All that he did was to direct on which track it should be put. "The charge or control" of the train and of the men on it remained in the hands of Stickles, and it was his duty to see that it was switched onto the designated track. There is nothing to show that after he had given the direction Mozier had anything further to do with the train. But, even if he had "the charge or control," we see no evidence of negligence on his part.

The second count was for a defect in the ways, works, and machinery, which, it was alleged, "consisted in an improper and inefficient method of allowing cars to be switched upon the track where said Caron was at work at the time while said track was in use by another train, and in allowing said cars to be so switched without any lights or other signals or warnings to persons while on said track." We are of opinion that, even if the method adopted was a dangerous one, the plaintiff's intestate must be held to have taken the risk of it. There is nothing to show that it had not been customary to switch cars onto tracks already occupied, without warnings or signals save such as would naturally be given to each other by those engaged in the work, during the whole time that the plaintiff's intestate had been working in the yard, which, as his widow testified, was two years and four months. It does not appear that any change had been made in the mode of doing the business so as to make it more dangerous after he entered the defendant's service. The law is well settled that under such circumstances the servant assumes the risk of such dangers as ordinarily are connected with the service in which he is engaged. He enters the business as it is, and can not be heard to complain that it might have been made safer, or that it was conducted in a hazardous manner.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—Section 2701 of the General Statutes of 1894 of Minnesota, known as the "fellow servant act," provides that "every railroad corporation owning or operating a railroad in this State shall be liable for all damage sustained by an agent or servant thereof by reason of the negligence of any other agent or servant thereof, without contributory negligence on his part, when sustained within this State, and no contract, rule, or regulation between such corporation and any agent or servant shall impair or diminish such liability."

The supreme court of Minnesota decided on December 9, 1895, in the case of Karl Mikkelson *v.* William H. Truesdale, receiver of the Minneapolis and St. Louis Railway Company (vol. 65, Northwestern Reporter, p. 260), that Mikkelson, who was a wiper in the defendant's roundhouse and was injured while assisting in coaling an engine by its being negligently moved, as he claimed, by a coemployee, was injured by reason of exposure to the hazards peculiar to the operation of railroads; also, that a receiver operating a railroad under the appointment and direction of a court of equity is within the provisions of the "fellow servant act," and is liable to an employee who is injured by the negligence of a coemployee.

In deciding as to the liability of the receiver under the statute, against which the defendant contended, Chief Justice Start, who delivered the opinion of the court, said:

It is true that the word "receiver" is not used in this statute, and that its language is, "every railroad corporation owning or operating a railroad;" but the statute is a police regulation intended to protect life, person, and property, by securing a more careful selection of servants and a more rigid enforcement of their duties by railroad companies, by making them pecuniarily responsible to those of their servants who are injured by the negligence of incompetent or careless fellow-servants. It is remedial in its nature, and must be construed, if not liberally, certainly in accordance with its obvious purpose and spirit. It would be a most unreasonable construction of the statute, if we were to adopt the one claimed for it by the defendant. We are aware that able courts have adopted such a construction of similar statutes, but we are of the opinion that they have taken a narrow view of the statute, and we must decline to follow their conclusions.

If this police regulation does not apply to receivers of railroad corporations, it is difficult to see why such receivers are not absolved from a compliance with each and all of the police regulations made applicable by statute to railroad corporations. Can it be true that a railroad corporation whose road is operated for it by a general manager is, and one whose road is managed for it by a receiver is not, subject to the police regulations of the State? or that the employees of the one have, and those of the other have not, a remedy, when injured by the negligence of a fellow-servant? or that the employees of a corporation whose road is operated by a general manager to-day have such remedy, but if injured to-morrow they will have it not, because a receiver has taken the place of the manager? It would seem that an affirmative answer must be given to these questions, if we held that this statute has no application to receivers of railway corporations. Manifestly, such is not the fair and reasonable construction to be given to the statute. It is only in a technical sense that a receiver manages a railroad for the court appointing him. He operates it subject to the direction of the court, not for its benefit, but for the owners of the road, the corporation and its creditors. In doing so he necessarily exercises the franchises, rights, and powers of the corporation, and discharges its functions as a common carrier, and appropriates the income received from the operation of the road for the benefit of the corporation; and it logically follows that in so operating the road the receiver stands, in respect to duty and liability, just where the corporation would if it was operating the road. A distinction in this respect has been made between the common-law duties and liabilities of the corporation and those imposed on it by statute, but there can be no distinction in principle, for wherein is the duty and liability more imperative or sacred in the one case than in the other? A receiver can not, while exercising the franchises and powers of a corporation, claim immunity from the police regulations and liabilities which have been imposed upon the corporation by the State.

These general considerations lead to the conclusion that the provisions of the fellow-servant statute, here in question, apply to a receiver operating a railroad under the appointment and direction of the court.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—In the State of Montana the liability of railroad companies for injuries of employees is defined by section 697, page 817, of the Montana Compiled Statutes of 1887, which provides: "That in every case the liability of the corporation to a servant or employee acting under the orders of his superior shall be the same in case of injury sustained by default or wrongful act of his superior, or to an employee not appointed or controlled by him, as if such servant or employee were a passenger." The same provision is found in the Montana Codes and Statutes, Sanders Edition, 1895, Civil Code, section 905.

Under the statute above quoted the supreme court of Montana decided, on November 25, 1895, in the case of Crisswell *v.* Montana Central Railway Company (Pacific Reporter, vol. 42, p. 767), that both the conductor and engineer of a train are the superiors of a brakeman on the same train, and that the railroad company is liable for injuries sustained by such brakeman in a collision caused by the negligence of the conductor in running his train into the depot yard at night without a sufficient headlight, or without sending a flagman to see if the tracks were clear, as required by the rules of the company.

The case was brought before the supreme court on appeal by the railway company from the judgment of the district court of Cascade County in favor of the plaintiff, Crisswell, who had been injured while in the employ of the company as a brakeman, under the circumstances outlined above.

It was contended by the defendant's counsel that the railway corporation, under the common law, had performed its whole duty to the plaintiff as its employee when it had used ordinary and reasonable care in providing (1) safe machinery, (2) furnishing a safe place to work, and (3) competent fellow-servants to prosecute the common employment; and that the statute in question does not increase or change the defendant's liability at common law; that it does not change the common law in relation to fellow-servants; that it does not establish the superior-servant doctrine and enlarge the common-law liability of the defendant in any respect, and was not so intended by the legislature.

Chief Justice Pemberton, in delivering the opinion of the supreme court, quoted at considerable length from the opinion of the United States circuit court for the northern district of Iowa, in the case of Ragsdale *v.* Railroad Co. (42 Fed., 383), and from the opinion of the United States circuit court of appeals, eighth circuit, in the case of Railroad Company *v.* Mase (63 Fed., 114), in both of which cases the interpretation of the statute in question was directly involved. In the course of the opinion in the Ragsdale case the court said, "Under this section the corporation is made liable to any one of its employees who, without negligence on his part, is injured by the default or wrongful act of a superior, even though the latter has no control over the former;" and in the Mase case, "It goes without saying that the pur-

pose of this statute was to extend the liability of railroad companies to their servants for the negligence of servants of a higher grade;" also, "The effect of the statute is to give a cause of action against the railroad company to every servant who is himself without fault, for the default or wrongful act of any superior servant, whether or not the latter appointed or exercised any control over the former before or at the time of the infliction of the injury."

After quoting from the cases above referred to Chief Justice Pemberton said:

We think from the interpretation given to the statute in question by the above authorities that it can not be doubted that the common-law rule contended for by the defendant was modified and changed thereby, and that such was the intention of that legislation. And it is no less plain that this statute establishes the principle that there is a difference in the grade of the employees engaged in a common employment, and gives a right of action to a servant, injured through the negligence of a superior employee or servant, against a master, when such injured servant is without fault or negligence on his part. In view of the extent to which the common-law rule has been carried, the enactment of such legislation is not surprising, nor are we prepared to reprobate the wisdom of the policy of establishing a legislative rule that relaxes the rigor of the common law in such cases.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—In the case of Missouri, Kansas and Texas Railway Company *v.* Whittaker (vol. 33, Southwestern Reporter, p. 716) the court of civil appeals of Texas, on November 23, 1895, reversed the judgment of the district court of Grayson County, by which Whittaker, a boiler washer in the company's employ, had been awarded $1,000 damages for injuries sustained by him through the negligence of a hostler employed by the company.

The court of civil appeals held, in effect, that under section 2 of chapter 24 of the General Laws of 1891 of Texas, relating to fellow-servants, the provisions of which were reenacted in section 2 of chapter 91 of the General Laws of 1893, a hostler, whose duty it is to bring the engines into the roundhouse and take them out when necessary, and a boiler washer, whose duty it is to clean the boilers of the engine so as to fit them for further service, both being under the orders of the roundhouse foreman and without authority over each other, are, as a matter of law, fellow-servants, and, hence, that one of them was not entitled to recover damages from their common employer, the railroad company, for injuries sustained through the negligence of the other.

Judge Finley, in delivering the opinion of the court of civil appeals, said:

The evidence, so far as it touches the relation of plaintiff and the hostler who was in charge of the engine and whose negligence, it is alleged, caused the injury, to the railway company and to each other, and as to the material circumstances under which the injury occurred, is entirely without conflict.

Plaintiff was employed at the roundhouse as a boiler washer, and his duty was to wash out the boilers of engines brought in there to be overhauled between their trips upon the road. The hostler was employed at the roundhouse, and his duty was to bring the engines into the roundhouse, and take them out again when they were sent out for use on the road. Both were employed by, and worked under the supervision of, the foreman of the roundhouse. Neither of them had any control, authority, direction, or superintendence over the other in his work. They were employed, though in different capacities, about the same work—that is, the care of the engines at the roundhouse when not in use upon the road.

Section 2 of our fellow-servant act reads as follows: "That all persons who are engaged in the common service of such railway corporations and who while so engaged are working together at the same time and place to a common purpose, of same grade, neither of such persons being intrusted by such corporations with any superintendence or control over their fellow-employees, are fellow-servants with each other; provided, that nothing herein contained shall be so construed as to make employees of such corporation, in the service of such corporation, fellow-servants with other employees of such corporation, engaged in any other department or service of such corporation. Employees who do not come within the provisions of this section shall not be considered fellow-servants."

At common law employees who serve the same master, labor under the same control and to a common purpose, and derive their authority and receive their pay from the same general source, are fellow-servants, although they be of different grades or labor in different and distinct departments of service. Our statute now fixes the relation of fellow-servant, as to railway employees, only between those who serve the same master, are of the same grade, are working together at the same time and place to a common purpose, in the same department, and neither being intrusted with superintendence or control over his fellow-employees. If they are of different grades, or different departments of service, or one is intrusted with the power to superintend or control his fellow-employees, then, under the statute, the relation of fellow-servant does not exist.

In the case before us for determination, unquestionably, the plaintiff and the hostler were serving the same master, at the same time and place, to a common purpose, were of the same grade, and neither had superintendence or control over fellow-employees. Were they in the same department or service? They were both employed by the foreman of the roundhouse, they were under the same special control, their duties called them to the same place of service at the same time, and their labors alike related to engines while they were not in actual service upon the road. The hostler brought the engines into the roundhouse and carried them out when necessary. The plaintiff cleaned out the boilers to make the same ready for further service. They were clearly in the same department. It is not necessary that they should be doing exactly the same kind of work, and getting the same compensation therefor, to be servants of the same grade or to be employees in the same department.

The court charged the substance of the statute, and left the jury to apply the evidence, and determine whether the plaintiff and the hostler were fellow-servants. Where the evidence clearly and without conflict shows the relation of the employees to be that of fellow-servants, the court should instruct the jury, as a matter of law, that they are such.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—The supreme court of Wisconsin decided, on November 26, 1895, in the case of Smith *v.* Chicago, Milwaukee and St. Paul Railway Company, that, under chapter 220 of the laws of 1893 of Wisconsin, a railway company is not liable for injuries to one of its car repairers caused by a switchman negligently running a train into the stationary car in which the repairer was at work.

The statute referred to provides that "Every railway company operating any railroad or railway, the line of which shall be in whole or in part within this State, shall be liable for all damages sustained within this State by any employee of such company, without contributory negligence on his part, * * * while any such employee is so engaged in operating, running, riding upon or switching, passenger or freight or other trains, engines or cars, and while engaged in the performance of his duties as such employee, and which such injury shall have been caused by the carelessness or negligence of any other employee, officer or agent of such company in the discharge of, or for failure to discharge his duties as such."

The opinion of the supreme court in this case, published in volume 65 of the Northwestern Reporter, page 183, was delivered by Judge Marshall, who in the course of it said:

It has been too long and too well settled that persons working for the same employer, bearing such relations to each other and to the business they are jointly engaged in for such employer as a switchman and a car repairer, are fellow-servants, and that the master is not liable for an injury to one through the negligence of the other, unless made so by statute, to need any discussion of the subject here.

Therefore, if there be any liability of defendant to plaintiff, it is under chapter 220, laws of 1893. The words [in the statute referred to] "while engaged in the performance of his duties as such employee," refer to the words, "while operating, running, riding upon or switching, passenger or freight or other trains, engines or cars." This, we think, is very clear. It is a familiar principle that statutes in derogation of the common law should be strictly construed, and not given any effect beyond the plain legislative intent; but whether the statute under consideration is tested by that rule, or by the more liberal one applicable to purely remedial laws, the result must be the same, for the legislative intent must govern, and that is to be determined "by considering the entire statute, looking at every part, having regard to the legislative idea or purpose of the whole instrument." The legislative idea of that part of the law under consideration plainly is to give a right of action to the class of employees engaged in operating and moving trains, engines, and cars, while actually so engaged; and the words used to express such idea are too plain to leave any room for a resort to the rules for judicial construction to determine their meaning. Plaintiff was not an employee engaged in the branch of railway service, when injured, entitled to the benefits of the statutory liability.

DECISIONS UNDER COMMON LAW.

BLACKLISTING.—In the United States circuit court, southern district of Florida, on January 21, 1896, in the case of W. E. Willett *v.* Jacksonville, St. Johns and Indian River Railroad Company, a jury awarded Willett the sum of $1,700 as damages against the railroad company for blacklisting him, which amount, together with the costs in the case, the company paid.

From information furnished the Department of Labor by the clerk of the court in which the case was tried, the facts upon which the suit was based appear to have been as follows: Willett, while employed as a conductor by the defendant company, sought employment on another railroad, the Savannah, Florida and Western (formerly the South Florida). He was notified that employment would be given him, and directed to report for duty immediately, and passes were sent him to enable him to go over the road of the Savannah, Florida and Western Railroad Company and learn the route before entering regularly upon the duties of his new position. He at once telegraphed to the proper official of the Jacksonville, St. Johns and Indian River Railroad Company, asking to be relieved from duty at a certain station, but was requested by the company to remain in its employ and take out another train. He finished the run he was then making and made the return run, telegraphing the official that he would leave the employ of the company upon arrival at its terminus, which he did, and proceeded to go over the line of the Savannah, Florida and Western Railroad Company to learn the route.

Before he had finished the preliminary trip he received a telegram from the officers of the last-named company directing him to "come back." He complied with this order, and upon returning was informed that he could not be employed. He subsequently ascertained the reason for this refusal to employ him to have been that the superintendent of the company whose service he had left, had written a letter to the superintendent of the company whose service he was about to enter, cautioning him against Willett, who, the letter stated, had left their employ with certain charges pending against him.

The principal defense of the railroad company was that the letter was a personal one, and not written officially, but this defense was of no avail, and, as before stated, Mr. Willett successfully prosecuted his suit against the company whose superintendent had prevented his employment by another company.

So far as the Department of Labor is advised, this is the first case of the kind ever tried in the United States in which an award of damages has been made and paid for blacklisting.

EMPLOYERS' LIABILITY.—The supreme judicial court of Massachusetts decided on November 29, 1895, in the case of O'Connor *v.* Rich, that a master, having furnished suitable material, is not responsible for injuries to a servant resulting from the negligence of another servant in putting a defective plank into a scaffold, though the scaffold was erected and the defective plank placed therein before the injured servant entered the master's service.

The facts in the case are stated in the opinion of the court which was delivered by Judge Knowlton. Said decision is published in volume 42 of the Northeastern Reporter, page 111, and is as follows:

The plaintiff fell and was injured by reason of the breaking of a plank in a temporary staging on which he was working in the defendant's building. It is not disputed that the staging was of a kind the construction of which is ordinarily left to the servants of the builder, and that the duty of the master concerning it was performed if he furnished a sufficient supply of suitable materials from which to construct it. In this case there was uncontradicted evidence that there were plenty of planks furnished by the defendant from which to build the staging, and the negligence, if there was any, was on the part of the workmen who put the planks in place, in taking one which was not adapted to such a use. Upon these facts, if the plaintiff had been in the defendant's service at the time when the staging was built, it would be very clear that he could not maintain his claim.

But it appears that, although he had previously worked for a considerable time upon the building, he was away working for another person four days before the day of the accident, and this staging was erected a day or two before his last engagement in the defendant's service began. Under these circumstances, the question is whether the defendant is liable to him for the previous negligence of a servant in doing work which may properly be intrusted to servants. We are of opinion that an employer, under such circumstances, owes one who is about to enter his service no duty to inspect all the work which has been done by his servants previously, and which ordinarily may be intrusted to them, without liability to their fellow-servants for their negligence. If he owes no such duty, the risk of accident from previous negligence of servants in their own field is one of the ordinary risks of the business which the employee assumes by virtue of his contract on entering the service.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—The supreme court of appeals of West Virginia, by decision of November 29, 1895, reversed the judgment of the circuit court of Braxton County in the case of Skidmore *v.* West Virginia and Pittsburg Railroad Company, by which $6,000 had been awarded Skidmore as damages for injuries sustained by him while in the performance of his duty as a section hand in the employ of the railroad company.

The opinion of the supreme court of appeals was delivered by Judge English and is published in volume 23 of the Southeastern Reporter, *page 713.* The syllabus of said opinion, prepared by the court, which

shows the circumstances of the case and the legal grounds upon which the judgment of the circuit court was reversed, is as follows:

1. Where a section hand in the employ of a railroad company, in company with other section hands, is engaged in clearing away a wreck under the supervision of a section boss and the supervisor of the road, and it is thought necessary to move a tender which lies on its side near the main track farther from said track, and said tender inclines a little toward the main track, but nothing in its appearance indicates that the bottom of said tender had been broken loose from the body, and neither the section boss nor supervisor could by ordinary diligence discover any such fracture, or any separation from the main body, and while the section hands are engaged in moving such tender the bottom falls out and injures said section hand, he is not entitled to recover from said railroad company damages for the injury so received.

2. Where a foreman and his assistants have equal knowledge of the danger accompanying an act about to be done, even if the foreman requests its performance, and injury ensues to the assistant, the employer can not be made liable. Notwithstanding the request, the assistant can comply or not, as he chooses, and if he does comply, he takes his chances of the peril surrounding the situation.

3. It is only when the servant is ignorant of the impending danger, and the employer is not, and the employer fails to warn the servant of such danger, that the master's liability attaches.

4. When one enters upon a service he assumes to understand it and takes all the ordinary risks that are incident to the employment; and where the employment presents special features of danger, such as are plain and obvious, he also assumes the risk of those.

5. Where the danger consists in some latent defect, which is not apparent by the use of ordinary diligence on the part of the master, and a servant in performing his work is thereby injured, when he had the same chances of observation as the master, no liability attaches to the master.

STRIKES, CONSPIRACY, LABOR COMBINATIONS NOT UNLAWFUL.—In the circuit court of Greene County, Ind., Benjamin F. Watson recovered damages in an action against Thomas Clemitt and others for having been driven from his employment as workman in a coal mine by an alleged wrongful conspiracy among other workmen in the mine, who agreed with each other not to work with him and to quit work unless he was discharged, pursuant to which they did quit work upon their employer's refusing to discharge Watson, by reason whereof the business was suspended and he was thrown out of work.

The defendants appealed to the appellate court of Indiana, which tribunal reversed the decision of the circuit court and held that such a combination among workmen is not actionable in the absence of malice, intimidation, or violence, or evidence that they were bound to continue work, or that the employer was obliged to retain the plaintiff in his service.

The opinion of the appellate court, delivered by Chief Justice Gavin

December 10, 1895, is published in full in volume 42 of the Northeastern Reporter, page 367. In the course of the opinion it is said:

While it is true that, under all civilized forms of government, every man surrenders for the general good a certain amount of that absolute freedom of action which may adhere to the individual in an independent or natural state, yet, under our institutions, it is a cardinal principle that each man retains the greatest freedom of action compatible with the general welfare. The right to control his own labor, and to bestow or withhold it where he will, belongs to every man. Even though he be under contract to render services, the courts will not interfere to compel him to specifically perform them. (Arthur *v.* Oakes, 11 C. C. A., 209; 63 Fed., 310.)

So far as appears by these instructions [of the circuit court to the jury] none of the appellants were under any continuing contract to labor for their employer. Each one could have quit without incurring any civil liability to him. What each one could rightfully do certainly all could do if they so desired, especially when their concerted action was taken peaceably, without any threats, violence, or attempts at intimidation. There is no law to compel one man or any body of men to work for or with another who is personally obnoxious to them. If they can not be by law compelled to work, I am wholly unable to see how they can incur any personal liability by simply ceasing to do that which they have not agreed to do, and for the performance of which they are under no obligation whatever.

Under our law every workman assumes many risks arising from the incompetency or negligence of his fellow-workmen. It would be an anomalous doctrine to hold that after his fellows have concluded that he was not a safe or even a desirable companion they must continue to work with him under the penalty of paying damages if by their refusal to do so the works are for a time stopped and he thrown out of employment. We can not believe it to be in accordance with the spirit of our institutions or the law of the land to say that a body of workmen must respond in damages because they, without malice or any evil motive, peaceably and quietly quit work which they are not required to continue rather than remain at work with one who is for any reason unsatisfactory to them. To so hold would be subversive of their natural and legal rights, and tend to place them in a condition of involuntary servitude.

STRIKES, INTIMIDATION, ETC.—RIGHT OF COURT TO INTERFERE BY INJUNCTION.—The supreme court of Missouri, on November 26, 1895, affirmed the judgment of the circuit court of the city of St. Louis in the case of Hamilton-Brown Shoe Company *v.* Saxey et al., and adopted as its own the opinion delivered in said case by Hon. L. B. Valliant, one of the judges of the circuit court, by which A. J. Saxey and others were prevented by injunction from attempting by intimidation, threats of personal violence, and other unlawful means to force the employees of the Hamilton-Brown Shoe Company to quit work and join in a strike.

The opinion in this case is published in volume 32 of the Southwestern Reporter, page 1106, and sufficient portions of it are here repro-

duced to give a clear understanding of the facts in the case and the reasoning upon which the judgment of the court was based:

The amended petition states in substance that the plaintiff conducts a large shoe manufactory in this city, and has in its employ some eight or nine hundred persons, all of whom are earning their living in plaintiff's employment, and are desirous of so continuing; that the defendants, except two of them, were lately in plaintiff's employ, but have gone out of the same, on a strike, and are now, with the other two defendants, engaged in an attempt to force the other employees of plaintiff to quit their work and join in the strike, and that to accomplish this purpose they are intimidating them with threats of personal violence; that among the plaintiff's employees who are thus threatened are about three hundred women and girls and two or three hundred other young persons; that the effect of all this on the plaintiff's business, if the defendants are allowed to proceed, would be to inflict incalculable damage.

The defendants have appeared by their counsel, and, by their demurrer filed, admit that all the statements of the amended petition are true; but they take the position that, even if they are doing the unlawful acts that they are charged with doing, still this court has no right to interfere with them, because they say that what they are doing is a crime, by the State law of this State, and that for the commission of a crime they can only be tried by a jury in a court having criminal jurisdiction. It will be observed that the defendants do not claim to have the right to do what the injunction forbids them doing. Their learned counsel even quotes the statute to show that it is a crime to do so. But he contends that the Constitution of the United States and the constitution of the State of Missouri guarantee them the right to commit crime, with only this limitation, to wit, that they shall answer for the crime, when committed, in a criminal court, before a jury, and that to restrain them from committing crime is to rob them of their constitutional right of trial by jury. If that position be correct, then there can be no valid statute to prevent crime. But that position is contrary to all reason. The right of trial by jury does not arise until the party is accused of having already committed the crime. If you see a man advancing upon another with murderous demeanor and a deadly weapon, and you arrest him—disarm him—you have perhaps prevented an act which would have brought about a trial by jury, but can you be said to have deprived him of his constitutional right of trial by jury? The train of thought put in motion by the argument of the learned counsel for defendants on this point leads only to this end, to wit, that the Constitution guarantees to every man the right to commit crime, so that he may enjoy the inestimable right of trial by jury.

Passing now to the question relating to the particular jurisdiction of a court of equity, we are brought to face the proposition that a court of equity has no criminal jurisdiction, and will not interfere by injunction to prevent the commission of a crime. These two propositions are firmly established; and as to the first, that a court of equity has no criminal jurisdiction, there is no exception. As to the second, that a court of equity will not interfere by injunction to prevent the commission of a crime, that, too, is perhaps without exception, when properly interpreted, but it is sometimes misinterpreted. When we say that a court of equity will never interfere by injunction to prevent the commission of a crime, we mean that it will not do so simply for the purpose of preventing a violation of a criminal law. But when the act complained of threatens an irreparable injury to the *property* of an individual a court of equity

will interfere to prevent that injury, notwithstanding the act may also be a violation of a criminal law. In such case the court does not interfere to prevent the commission of a crime, although that may incidentally result, but it exerts its force to protect the individual's property from destruction, and ignores entirely the criminal portion of the act. There can be no doubt of the jurisdiction of a court of equity in such a case.

Equity will not interfere when there is an adequate remedy at law. But what remedy does the law afford that would be adequate to the plaintiffs' injury? How would their damages be estimated? How compensated? The defendants' learned counsel cites us to the criminal statute, but how will that remedy the plaintiffs' injury? A criminal prosecution does not propose to remedy a private wrong.

What a humiliating thought it would be if these defendants were really attempting to do what the amended petition charges, and what their demurrer confesses—that is, to destroy the business of these plaintiffs, and to force the eight or nine hundred men, women, boys, and girls, who are earning their livings in the plaintiffs' employ, to quit their work against their will—and yet there is no law in the land to protect them. The injunction in this case does not hinder the defendants doing anything that they claim they have a right to do. They are free men, and have a right to quit the employ of the plaintiffs whenever they see fit to do so, and no one can prevent them; and whether their act of quitting is wise or unwise, just or unjust, it is nobody's business but their own. And they have a right to use fair persuasion to induce others to join them in their quitting. But when fair persuasion is exhausted they have no right to resort to force or threats of violence. The law will protect their freedom and their rights, but it will not permit them to destroy the freedom and rights of others. The same law which guarantees the defendants in their right to quit the employment of the plaintiffs at their own will and pleasure also guarantees the other employees the right to remain at their will and pleasure. These defendants are their own masters, but they are not the masters of the other employees, and not only are they not the masters of the other employees, but they are not even their guardians. There is a maxim of our law to the effect that one may exercise his own right as he pleases, provided that he does not thereby prevent another exercising his right as he pleases. This maxim or rule of law comes nearer than any other rule in our law to the golden rule of Divine authority: "That which you would have another do unto you, do you even so unto them." Whilst the strict enforcement of the golden rule is beyond the mandate of a human tribunal, yet courts of equity, by injunction, do restrain men who are so disposed from so exercising their own rights as to destroy the rights of others.

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BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 5—JULY, 1896.

ISSUED EVERY OTHER MONTH.

EDITED BY

CARROLL D. WRIGHT,
COMMISSIONER.

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CHIEF CLERK.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1896.

CONTENTS.

6

BULLETIN

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DEPARTMENT OF LABOR.

No. 5. WASHINGTON. JULY, 1896.

CONVICT LABOR.

In February, 1887, the Commissioner of Labor published a report on the subject of convict labor in the United States, known as the Second Annual Report of the Commissioner of Labor. The investigation, the results of which were published at that time, was made in accordance with a joint resolution of Congress approved August 2, 1886, authorizing and directing the Commissioner of Labor to make a full investigation as to the kind and amount of work performed in the penal institutions of the various States and Territories of the United States and the District of Columbia, as to the methods under which convicts were employed, and as to all the facts pertaining to convict labor and the influence of the same upon the industries of the country. The inquiry, conducted in accordance with the Congressional authorization, reached all penal institutions of all grades in the States and Territories and the District of Columbia in which the inmates were in any degree employed in productive labor. The data gathered at that time covered as nearly as possible the fiscal year of each institution ending in 1886. The facts, therefore, were more nearly for the calendar year 1885. To bring recent facts into comparison with those collected in 1886 the Department of Labor has just completed an investigation covering the more important information concerning the employment of convicts, and the results of this recent investigation are contained in this number of the Bulletin of the Department. This information relates generally to the year 1895; so that we have a ten-year comparison of certain facts. In Delaware, Idaho, Montana, Utah, and Wyoming, in 1885, there were no convicts employed in productive labor; therefore, these States are omitted from the present inquiry. This second inquiry, however, comprehends only penal institutions of the grade of State penitentiaries or prisons. In the report for 1885–86, which consisted of 604 pages, all penal institutions of whatever grade in which the convicts were employed upon productive work or manufactures of any kind were investigated

and the results given in a series of sixteen general tables, with an analysis. The results of State investigations previously made were also given, and there was a discussion of the advantages and disadvantages of various systems and plans for the employment of convicts. That report also contained extensive historical notes giving the leading facts of the employment of convicts among the early nations and of the plans and means of utilizing convict labor in recent times in various countries of the world. It also contained all the convict labor laws then in force in the various States and Territories. The present report is confined to convict labor in institutions of the grade of State penitentiaries and an abstract of the various laws relating to convict labor enacted in the different States and Territories since the report of 1885–86.

In the report of ten years ago it was found that the total value of all products of, and work performed in, all the penal institutions of all grades was $28,753,999, while the value of goods produced and work done at that time in the penal institutions now considered was $24,271,078. It will thus be seen that all other institutions, or those of a lower grade than the State penitentiary, were then of little consequence. For this reason the present investigation has been confined to the high-grade institutions.

In 1885 there were four plans or systems followed in the employment of convicts, and they are described in brief as—

1. The contract system, under which a contractor employs convicts at a certain agreed price per day for their labor, the prisoners working under the immediate direction of the contractor or his agents. Under this system the institutions usually furnish to the contractor the power necessary and even the machinery for carrying on the work.

2. The piece-price system, which is simply a modification of the contract system. Under this system the contractor furnishes to the prison the materials in a proper shape for working, and receives from the prison the manufactured articles at an agreed piece price, the supervision of the work being wholly in the hands of the prison officials.

3. The public-account system, under which the institution carries on the business of manufacturing like a private individual or firm, buying raw materials and converting them into manufactured articles, which are sold in the best available market.

4. The lease system, under which the institution leases the convicts to a contractor for a specified sum and for a fixed period, the lessee usually undertaking to clothe, feed, care for, and maintain proper discipline among the prisoners while they perform such labor as may have been determined by the terms of the lease.

These four systems are still followed, with some modifications here and there, especially in a few States where, by law, convicts must be employed in the production of things used by the State in its various institutions—penal, charitable, etc.

The results of the present investigation are presented in eight tables and a section giving the abstracts of the various State laws enacted

since 1885. These tables are so brief and comprehensive in themselves that they need but little analysis.

Table I shows the fiscal years in each State and for each institution for which the facts have been reported.

Table II shows the systems of work in vogue, both in 1885 and in 1895, in each institution comprehended in this report. By examining the last two columns the changes in system are easily seen. It will be noticed that the changes are chiefly from contract to public account or piece price, and from lease to contract or public account. There have not been many changes, however.

Table III states the number of convicts in prisons and penitentiaries in 1895, by systems of work, designating them under those employed in productive labor, those engaged in prison duties, and those who are idle and sick, and the total number, classifying them by sex, under each of these designations. Out of this table is drawn Table IV, which gives a more interesting and important statement.

Table IV consolidates the number in each State under all systems, both for 1885 and 1895. Looking at the total line in Table IV, it is seen that the number of convicts in the prisons of the grade under consideration in 1885 was 41,877, while for 1895 the number rose to 54,244. It is interesting to observe that, in 1885, of these numbers 1,967 were females, while the number of females in 1895 was 1,988, an increase of only 21. In 1885 the number engaged in productive labor was 30,853, being 73.7 per cent of the total number of convicts at that time, while in 1895 the number engaged in productive labor was 38,415, or 70.8 per cent of the total number of convicts. While there was thus a decrease in the proportion of convicts employed in productive labor, it will be seen that there was also a decrease in the proportion of those engaged in prison duties, for in 1885 the total so engaged was 8,391, or 20 per cent of the whole number of convicts, while in 1895 there were 8,804 so engaged, being 16.2 per cent of the whole number. When we come to the idle and sick, an increase in the proportion in the ten years is observed. In 1885 the number was 2,633, or 6.3 per cent of the whole, while in 1895 the number of idle and sick was 7,025, being 13 per cent of the whole. Undoubtedly this proportional increase is in the number of idle, this state of affairs being brought about by changes in the laws relating to the employment of convicts.

Table V is an analytical table giving the kind of goods produced or work done, both in 1885 and 1895, and the value thereof, for each State and for each system. An examination of this table shows the shifting of the industries in the State prisons of the country during the ten years.

Table VI shows the value of goods produced or work done, by systems of work, for the two years under consideration, but the values are consolidated for each State for the various prisons covered by the investigation.

Table VII summarizes these totals for the whole country. This table is reproduced here as a part of this text analysis.

SUMMARY OF VALUE OF GOODS PRODUCED OR WORK DONE BY SYSTEMS OF WORK, 1885 AND 1895.

Systems of work.	Value.	
	1885.	1895.
Public-account system	$2,063,892.18	$4,888,563.36
Contract system	17,071,265.69	8,190,799.70
Piece-price system	1,484,230.52	3,795,483.24
Lease system	3,651,690.00	2,167,626.03
Total	24,271,078.39	19,042,472.33

By this brief table one can note the general changes in values. Under the public-account system there were produced in the United States in 1885 goods to the value of $2,063,892.18, but under this system in 1895 there were produced goods to the value of $4,888,563.36, being an increase of more than 100 per cent. This system has become more popular in recent years, hence the increase. Looking at the next line we find that under the contract system there has been a decrease of about 50 per cent, the decrease being from $17,071,265.69 to $8,190,799.70. This system (the contract) has become offensive during the past few years, and legislatures have sought to change their plans from that either to the public-account system or to the piece-price system; under the latter the value of goods has increased from $1,484,230.52 in 1885 to $3,795,483.24 in 1895, an increase of over 150 per cent. Under the lease system the values show the effect of agitation in the Southern States, where that system more generally prevailed in 1885, for there the value of goods produced or work done decreased from $3,651,690 to $2,167,626.03 in 1895, a decrease of 40.6 per cent. But the totals show a great change, the decrease being from $24,271,078.39 in 1885 to $19,042,472.33 in 1895, a decrease of 21.5 per cent.

Table VIII summarizes the value of goods produced or work done, by States, without regard to system, and this table shows clearly in what communities there has been an increase or decrease in the value of products in the various State prisons. There has been an increase in 16 States and Territories and a decrease in 25 States and Territories. The increase occurs in the following-named States and Territories: Alabama, Connecticut, Florida, Maryland, Massachusetts, Minnesota, Missouri, New Hampshire, New Mexico, Rhode Island, South Carolina, Texas, Vermont, Virginia, Washington, and Wisconsin. A decrease occurs in the following-named States and Territories: Arizona, Arkansas, California, Colorado, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Michigan, Mississippi, Nebraska, Nevada, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Dakota, Tennessee, and West Virginia. There seems to be no influence arising from geographical location to affect this increase or decrease. Some effort has been made to ascertain the causes of decrease

in the value of product or of work performed, and the results are fairly satisfactory. In Arizona it is ascertained that the prisoners are not engaged in productive labor, but are employed in prison improvements only. In Arkansas there has been a change of system, which works a decrease, while values have been lowered. In California the convicts have been employed in enlarging the prison and in cultivating a farm for their own benefit. This is at the State Prison at Folsom. At the State Prison at San Quentin there has been a discontinuance, by act of legislature, of all industries which in any way entered into competition with free labor. In Colorado there has been a discontinuance, by act of legislature, of all industries which entered into competition with free labor in that State. The decrease in Georgia has been very large, but no satisfactory explanation thereof has been given. In the State Penitentiary of Illinois a stone contractor threw up his contract in 1893, resulting in a loss of product. There is a small force in the shoe factory, while a cooper shop has been removed from the prison; and no barbed-wire goods are now made. At the Southern Penitentiary of Illinois there has been a change of system from contract to public account, which change very generally results in a loss in the value of goods made. At the State Prison (north) in Indiana contractors refused to renew their contracts, the knitting factory was closed, and the chair factory and cooper shop ran on half time. At the State Prison (south) the contractors also refused to renew their contracts. At the State Reformatory for Women in Indiana the principal industry has been almost discontinued, because it was found impossible to compete with those doing the same work outside of the prison by machinery. The small decrease in Iowa occurred at the State Penitentiary at Anamosa by reason of lower prices being realized for goods made, and by the industrial depression affecting prices. In Kansas the principal industry was discontinued because of depression in business. The decrease in Kentucky was caused by the failure of the contractors in 1893, since which time all convicts have been employed in but two industries. In Louisiana the decrease was on account of the low selling value of the goods made, while the smaller production and decrease in the selling value of goods accounts for the loss in the State of Maine. In Michigan the decrease is owing to causes affecting the State Prison, where the convicts were not steadily employed in 1895, 200 able convicts being idle for nine months. In Mississippi there was a change from the lease to the public-account system in 1894, but no positive explanation is given why this change should have resulted in a loss of $80,000 in the value of goods. In Nebraska the reason given is the depression in business and the impossibility of leasing convicts in several industries, such as the manufacture of agricultural implements and clothing, and laundering, which were carried on before. In Nevada the convicts were employed at improvements and repairs of the prison. The manufacture of shoes was discontinued, and there was no demand for stone. In New Jersey the decrease was probably owing to a State law restrict-

ing the number of convicts to 100 in any one industry, to smaller production, and to a decrease in the selling value of goods. This was at the State Prison, while at the Essex County Penitentiary the apparent decrease was owing to an error in the report made to the Department in 1885. The decrease in New York of over $2,800,000 in the value of goods produced and work done, was largely owing to changes in legislation. At the Auburn Prison there was no decrease. At the Sing Sing State Prison a change of system, a lowering of the selling value of goods, a less number of convicts employed, and the legislation of 1889, restricting the number of convicts in any one industry, account for the decrease at that point, and the same causes operated at the Clinton Prison, convicts there being employed in less profitable industries. A change in the system of employment accounts for the decrease at the State Reformatory, while at the Albany County Penitentiary a change in the nature of the product—it being from shoes to less profitable industries—satisfies the inquiry there. The decrease at the Erie County Penitentiary and the Kings County Penitentiary resulted from legislation restricting the number of convicts in any one industry, and from a change of system from contract to piece price, while at the Monroe County and Onondaga County Penitentiaries a change of system from contract to public account was responsible. The decrease of about $70,000 in the value of products at the State Penitentiary of North Carolina has not been explained. At the Ohio Penitentiary the decrease came from a lowering of the price of goods and legislation requiring the prison-made goods to be stamped. At the Oregon State Penitentiary the decrease was on account of the general decline in business. In Pennsylvania, at the Eastern Penitentiary, the discontinuance of the hosiery industry because of inventions outside, and a smaller number of convicts employed, account for the loss there; while at the Western Penitentiary the decrease was owing to a change of system from contract to public account, the convicts not being steadily employed. The other prisons of State grade in Pennsylvania which show a loss are those for the counties of Berks, Chester, Delaware, Northumberland, Philadelphia, and Schuylkill. In these, smaller production and a decline in the selling value of goods account for the decrease in the value of products, although in Philadelphia County, in addition to these reasons, there has been a change in the quality of goods made, and on account of dullness of trade the convicts have frequently been idle. The figures for the State of South Dakota for 1895 are shown in connection with those for 1885 for Dakota Territory. In Tennessee the decrease in value of production resulted from smaller output and a decline in selling values. The decrease in West Virginia of about $33,000 is not explained.

A study of the abstracts of legislation since the report of 1885–86 in the different States and Territories, which follow immediately after Table VIII, will give a clearer insight into the character of the changes referred to above.

When the value of goods produced is given there should be no misunderstanding as to what is meant; for instance, the total value of goods produced or work done in the United States, for the various States and Territories, in all the State prisons and penitentiaries, for 1895, was $19,042,472.33. The same difficulty occurs here that occurs in census work in stating the value of products. The sum just given represents the value of the goods after the materials have been manipulated by the convicts. It does not represent the value which has been added by them, but represents the value of the materials on which work has been bestowed and the work itself. Under the public-account system prison officials purchase the materials and convert them, by the labor of convicts, into goods, which they sell. The value given includes, therefore, the value of the materials purchased plus the labor expended upon them by the prisoners. In purchasing materials the prison officials in many instances purchase the finished products of manufacturers outside of prisons. They purchase everything that is essential for conversion into certain articles. So the contractors working under the contract system take to the prisons the materials, which there, by the labor of the convicts, they convert into finished goods. The value reported to the Department, therefore, covers the value of these materials, whether the finished products of some other manufacturers or purely raw materials plus the labor expended upon them. These explanations, if clearly understood, will prevent any misunderstanding on the part of the reader of this report, and they are equally applicable to the values reported for 1885. The $19,042,472.33 does not represent the labor of the convicts themselves. In 1885 the total wages paid by contractors and lessees to States and counties for the labor of convicts, from which resulted a product of the value of $28,753,999, was only $3,512,970, or $1 of convict-labor wages to $8.19 of finished product of convict labor. There is reason to believe that the ratio at the present time is less than that for 1885. At the present time in all probability the total value of the labor expended by the convicts in the State penitentiaries and prisons of the country, considered in this report, does not exceed $2,500,000.

TABLE I.—DATE OF ENDING OF FISCAL YEAR.

[The returns made for what has been termed, for brevity's sake, "1895," in all these tables, were really for the dates shown herewith.]

State.	Locality.	Fiscal year ending—	State.	Locality.	Fiscal year ending—
Alabama	Wetumpka	Aug. 31, 1894	New York	Sing Sing	Sept. 30, 1895
Arizona	Yuma	Dec. 31, 1895	New York	Dannemora	Sept. 30, 1895
Arkansas	Little Rock	Oct. 31, 1894	New York	Elmira	Sept. 30, 1895
California	Folsom	June 30, 1895	New York	Albany	Oct. 31, 1895
California	San Quentin	June 30, 1895	New York	Buffalo	Sept. 30, 1895
Colorado	Cañon City	Nov. 30, 1895	New York	Brooklyn	July 31, 1895
Connecticut	Wethersfield	Dec. 31, 1895	New York	Rochester	Sept. 30, 1895
Florida	Tallahassee	Dec. 31, 1895	New York	Syracuse	Oct. 30, 1895
Georgia	Atlanta	Oct. 1, 1895	North Carolina	Raleigh	Dec. 31, 1895
Illinois	Joliet	Sept. 30, 1895	Ohio	Columbus	Oct. 31, 1895
Illinois	Chester	Sept. 30, 1895	Oregon	Salem	Dec. 31, 1895
Indiana	Michigan City	Oct. 31, 1895	Pennsylvania	Philadelphia	Dec. 31, 1895
Indiana	Jeffersonville	Oct. 31, 1895	Pennsylvania	Allegheny City	Dec. 31, 1895
Indiana	Indianapolis	Oct. 31, 1895	Pennsylvania	Philadelphia	Dec. 31, 1895
Iowa	Fort Madison	June 30, 1895	Pennsylvania	Reading	Dec. 31, 1895
Iowa	Anamosa	June 30, 1895	Pennsylvania	West Chester	Sept. 30, 1895
Kansas	Lansing	June 30, 1895	Pennsylvania	Media	Dec. 31, 1895
Kentucky	Frankfort	Nov. 30, 1895	Pennsylvania	Lancaster	Nov. 30, 1895
Louisiana	Baton Rouge	Feb. 28, 1895	Pennsylvania	Allentown	Dec. 31, 1895
Maine	Thomaston	Nov. 30, 1895	Pennsylvania	Norristown	Dec. 31, 1895
Maryland	Baltimore	Nov. 30, 1895	Pennsylvania	Easton	Dec. 31, 1895
Massachusetts	Boston	Sept. 30, 1895	Pennsylvania	Sunbury	Dec. 31, 1895
Massachusetts	Concord Junct'n	Sept. 30, 1895	Pennsylvania	Philadelphia	Dec. 31, 1895
Massachusetts	Sherborn	Sept. 30, 1895	Pennsylvania	Pottsville	Dec. 31, 1895
Michigan	Jackson	June 30, 1895	Rhode Island	Howard	Dec. 31, 1895
Michigan	Ionia	June 30, 1895	South Carolina	Columbia	Oct. 31, 1895
Minnesota	Stillwater	July 31, 1895	South Dakota	Sioux Falls	June 30, 1894
Mississippi	Jackson	Sept. 30, 1895	Tennessee	Nashville	Dec. 31, 1895
Missouri	Jefferson City	Dec. 31, 1895	Texas	Huntsville and Rusk.	Oct. 31, 1894
Nebraska	Lancaster	Dec. 31, 1895			
Nevada	Carson City	Dec. 31, 1895	Vermont	Windsor	June 30, 1895
New Hampshire	Concord	Apr. 30, 1896	Vermont	Rutland	June 30, 1895
New Jersey	Trenton	Oct. 31, 1895	Virginia	Richmond	Sept. 30, 1895
New Jersey	Caldwell	Apr. 30, 1896	Washington	Walla Walla	Sept. 30, 1895
New Mexico	Santa Fe	Mar. 4, 1895	West Virginia	Moundsville	Sept. 30, 1895
New York	Auburn	Sept. 30, 1895	Wisconsin	Waupun	Sept. 30, 1895

TABLE II.—SYSTEMS OF WORK IN 1885 AND 1895.

State.	Institution.	Locality.	1885.	1895.
Alabama	State Penitentiary	Wetumpka	Lease	Lease and public account.
Arizona	Territorial Prison	Yuma	Public account	Public account.
Arkansas	State Penitentiary	Little Rock	Lease	Contract and public account.
California	State Prison	Folsom	Public account	Public account.
California	State Prison	San Quentin	Piece price and public account.	Public account.
Colorado	State Penitentiary	Cañon City	Public account	Public account.
Connecticut	State Prison	Wethersfield	Contract	Contract.
Florida	State Penitentiary	Tallahassee	Lease	Lease.
Georgia	State Penitentiary	Atlanta	Lease	Lease.
Illinois	State Penitentiary	Joliet	Contract	Contract and public account.
Illinois	Southern Penitentiary	Chester	Contract	Public account.
Indiana	State Prison (north)	Michigan City	Contract	Contract.
Indiana	State Prison (south)	Jeffersonville	Contract	Contract.
Indiana	State Reformatory for Women.	Indianapolis	Piece price	Piece price.
Iowa	State Penitentiary	Fort Madison	Contract	Contract.
Iowa	State Penitentiary	Anamosa	Public account	Public account.
Kansas	State Penitentiary	Lansing	Public account and contract.	Public account and contract.
Kentucky	State Penitentiary	Frankfort	Lease and public account.	Piece price.
Louisiana	State Penitentiary	Baton Rouge	Lease	Lease.
Maine	State Prison	Thomaston	Public account	Public account.
Maryland	Penitentiary	Baltimore	Contract	Contract.
Massachusetts	State Prison	Boston	Contract	Piece price and public account.
Massachusetts	Reformatory	Concord Junction.	Piece price	Piece price.
Massachusetts	Reformatory Prison for Women.	Sherborn	Piece price	Piece price and public account.
Michigan	State Prison	Jackson	Contract and piece price.	Contract and public account.

TABLE II.—SYSTEMS OF WORK IN 1885 AND 1895—Concluded.

State.	Institution.	Locality.	1885.	1895.
Michigan	State House of Correction and Reformatory.	Ionia	Contract	Public account and contract.
Minnesota	State Prison	Stillwater	Contract	Contract and public account.
Mississippi	State Penitentiary	Jackson	Lease	Public account.
Missouri	State Penitentiary	Jefferson City	Contract	Contract.
Nebraska	State Penitentiary	Lancaster	Lease	Lease.
Nevada	State Prison	Carson City	Public account	Public account.
New Hampshire	State Prison	Concord	Contract	Contract.
New Jersey	State Prison	Trenton	Piece price	Piece price and public account.
New Jersey	Essex County Penitentiary.	Caldwell	Public account	Public account.
New Mexico	Territorial Penitentiary.	Santa Fe	Lease	Public account.
New York	Auburn Prison	Auburn	Public account and contract.	Piece price and public account.
New York	Sing Sing State Prison	Sing Sing	Contract.	Public account and piece price.
New York	Clinton Prison	Dannemora	Public account	Public account and piece price.
New York	State Reformatory	Elmira	Contract and public account.	Piece price and public account.
New York	Albany County Penitentiary.	Albany	Contract	Piece price.
New York	Erie County Penitentiary.	Buffalo	Contract	Public account and piece price.
New York	Kings County Penitentiary.	Brooklyn	Contract	Piece price.
New York	Monroe County Penitentiary.	Rochester	Contract	Piece price and public account.
New York	Onondaga County Penitentiary.	Syracuse	Contract	Piece price.
North Carolina	State Penitentiary	Raleigh	Public account and lease.	Public account.
Ohio	Penitentiary	Columbus	Contract, piece price, and public account.	Contract and piece price.
Oregon	State Penitentiary	Salem	Contract and public account.	Contract and public account.
Pennsylvania	Eastern Penitentiary	Philadelphia	Public account and piece price.	Public account.
Pennsylvania	Western Penitentiary	Allegheny City	Contract	Public account and piece price.
Pennsylvania	Philadelphia County House of Correction.	Philadelphia	Public account	Public account.
Pennsylvania	Berks County Prison	Reading	Public account	Public account.
Pennsylvania	Chester County Prison	West Chester	Public account	Public account.
Pennsylvania	Delaware County Prison.	Media	Public account	Public account.
Pennsylvania	Lancaster County Prison.	Lancaster	Public account	Public account.
Pennsylvania	Lehigh County Prison	Allentown	Public account	Public account.
Pennsylvania	Montgomery County Prison.	Norristown	Piece price	Piece price.
Pennsylvania	Northampton County Prison.	Easton	Public account	Public account.
Pennsylvania	Northumberland County Prison.	Sunbury	Public account	Public account.
Pennsylvania	Philadelphia County Prison.	Philadelphia	Public account	Public account.
Pennsylvania	Schuylkill County Prison.	Pottsville	Public account	Public account.
Rhode Island	State Prison and Providence County Jail.	Howard	Contract	Contract.
South Carolina	Penitentiary	Columbia	Contract, public account, and lease.	Contract, public account, and lease.
South Dakota	State Penitentiary	Sioux Falls	Contract (a)	Public account.
Tennessee	State Penitentiary	Nashville	Lease	Lease.
Texas	State Penitentiary	Huntsville and Rusk.	Public account and contract.	Public account and contract.
Vermont	State Prison	Windsor	Contract	Contract.
Vermont	House of Correction	Rutland	Contract	Public account.
Virginia	State Penitentiary	Richmond	Contract	Contract and public account.
Washington	Penitentiary	Walla Walla	Lease	Public account.
West Virginia	Penitentiary	Moundsville	Contract	Contract.
Wisconsin	State Prison	Waupun	Contract	Contract and public account.

a Dakota Territory.

TABLE III.—CONVICTS IN PRISONS AND PENITENTIARIES, BY SYSTEMS OF WORK, 1895.

PUBLIC-ACCOUNT SYSTEM.

Marginal number.	Name of institution.	Locality.	Employed in productive labor.		
			Male.	Female.	Total.
	ARIZONA.				
1	Territorial Prison	Yuma	158	2	160
	CALIFORNIA.				
2	State Prison	Folsom	743	.....	743
3	State Prison	San Quentin	717	.....	717
	COLORADO.				
4	State Penitentiary	Cañon City	163	.....	163
	ILLINOIS.				
5	Southern Penitentiary	Chester	517	.....	517
	IOWA.				
6	State Penitentiary	Anamosa	363	.....	363
	KANSAS.				
7	State Penitentiary	Lansing	*a* 825	*a* 16	*a* 841
	MAINE.				
8	State Prison	Thomaston	89	.....	89
	MICHIGAN.				
9	State House of Correction and Reformatory.	Ionia	*b* 378	.....	*b* 378
	MISSISSIPPI.				
10	State Penitentiary	Jackson	894	10	904
	NEVADA.				
11	State Prison	Carson City	10	.....	10
	NEW JERSEY.				
12	Essex County Penitentiary	Caldwell	212	.....	212
	NEW MEXICO.				
13	Territorial Penitentiary	Santa Fe	107	.....	107
	NEW YORK.				
14	Clinton Prison	Dannemora	*c* 670	.....	*c* 670
15	Erie County Penitentiary	Buffalo	*d* 230	.....	*d* 230
	NORTH CAROLINA.				
16	State Penitentiary	Raleigh	1,000	40	1,040
	PENNSYLVANIA.				
17	Eastern Penitentiary	Philadelphia	194	23	217
18	Western Penitentiary	Allegheny City	*e* 830	.....	*e* 830
19	Philadelphia County House of Correction.	Philadelphia	508	87	595
20	Berks County Prison	Reading	103	.....	103
21	Chester County Prison	West Chester	19	.....	19
22	Delaware County Prison	Media	38	2	40
23	Lancaster County Prison	Lancaster	51	.....	51
24	Lehigh County Prison	Allentown	30	.....	30
25	Northampton County Prison	Easton	40	.....	40
26	Northumberland County Prison	Sunbury	49	.....	49
27	Philadelphia County Prison	Philadelphia	32	.....	32
28	Schuylkill County Prison	Pottsville	48	.....	48
	SOUTH DAKOTA.				
29	State Penitentiary	Sioux Falls	84	.....	84

a Including those under the contract system.
b Including 78 under the contract system.
c Including those under the piece-price system.

TABLE III.—CONVICTS IN PRISONS AND PENITENTIARIES, BY SYSTEMS OF WORK, 1895.

PUBLIC-ACCOUNT SYSTEM.

Engaged in prison duties.			Idle and sick.			Total.			Marginal number.
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
.....	.....	.....	5	.....	5	163	2	165	1
160	.....	160	24	.....	24	927	.....	927	2
447	12	459	108	3	111	1,272	15	1,287	3
100	15	115	346	.....	346	609	15	624	4
222	.....	222	6	.....	6	745	.....	745	5
114	25	139	40	.....	40	517	25	542	6
.....	.....	.....	30	1	31	a 855	a 17	a 872	7
37	4	41	21	.....	21	147	4	151	8
124	.....	124	69	.....	69	b 571	.....	b 571	9
36	.....	36	50	.....	50	980	10	990	10
62	.....	62	5	1	6	77	1	78	11
45	14	59	.....	.....	.....	257	14	271	12
40	1	41	1	.....	1	148	1	149	13
273	.....	273	64	.....	64	c 1,007	.....	c 1,007	14
55	40	95	417	11	428	d 702	51	d 753	15
75	35	110	50	8	58	1,125	83	1,208	16
97	2	99	1,112	.....	1,112	1,403	25	1,428	17
174	23	197	131	1	132	e 1,135	24	e 1,159	18
319	93	412	201	23	224	1,028	203	1,231	19
14	4	18	.....	.....	.....	117	4	121	20
3	.....	3	2	.....	2	24	.....	24	21
3	.....	3	1	.....	1	42	2	44	22
46	3	49	2	.....	2	99	3	102	23
12	.....	12	78	.....	78	120	.....	120	24
3	.....	3	7	.....	7	50	.....	50	25
20	2	22	21	8	29	90	10	100	26
19	45	64	213	1	214	264	46	310	27
13	6	19	13	.....	13	74	6	80	28
28	2	30	3	.....	3	115	2	117	29

d Including 30 under the piece-price system.
e Including 140 under the piece-price system.

IN PRISONS AND PENITENTIARIES, BY SYSTEMS OF WORK, 1895—Continued.

PUBLIC-ACCOUNT SYSTEM—Concluded.

nstitution.	Locality.	Employed in productive labor.		
		Male.	Female.	Total.
KAS.				
.....	Huntsville and Rusk	a 3,760	62	a 3,822
MONT.				
n	Rutland	42	.....	42
INGTON.				
.....	Walla Walla	264	.....	264
.....	.....	13,168	242	13,410

CONTRACT SYSTEM.

NSAS.				
.....	Little Rock	b 749	b 12	b 761
CTICUT.				
.....	Wethersfield	303	.....	303
NOIS.				
.....	Joliet	b 1,199	b 43	b 1,242
ANA.				
)	Michigan City	655	.....	655
)	Jeffersonville	475	.....	475
VA.				
.....	Fort Madison	280	.....	280

TABLE III.—CONVICTS IN PRISONS AND PENITENTIARIES, BY SYSTEMS OF WORK, 1895—Continued.

PUBLIC-ACCOUNT SYSTEM—Concluded.

Engaged in prison duties.			Idle and sick.			Total.			Marginal number.
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
208	6	214	89	.....	89	a 4,057	68	a 4,125	1
40	3	43	.....	1	1	82	4	86	2
126	4	130	22	.....	22	412	4	416	3
2,915	339	3,254	3,131	58	3,189	19,214	639	19,853	

CONTRACT SYSTEM.

46	.....	46	80	2	82	b 875	b 14	b 889	4
108	5	113	14	.....	14	425	5	430	5
311	11	322	51	2	53	b 1,561	b 56	b 1,617	6
144	.....	144	53	.....	53	852	.....	852	7
200	.....	200	140	.....	140	815	.....	815	8
105	.....	105	115	.....	115	500	.....	500	9
64	5	69	3	.....	3	677	26	703	10
163	1	164	198	1	199	b 808	2	b 810	11
12	6	131	12	2	14	c 494	8	c 502	12
448	12	460	553	11	564	2,106	53	2,159	13
13	2	15	1	.....	1	181	2	183	14
387	33	420	627	.....	627	d 2,052	33	d 2,085	15
221	.....	221	17	3	20	b 396	3	b 399	16
12	2	14	5	.....	5	153	2	155	17
55	40	95	21	4	25	e 970	44	e 1,014	18

d Including those under the piece-price system.
e Including 247 under the public-account system and 438 under the lease system.

TABLE III.—CONVICTS IN PRISONS AND PENITENTIARIES, BY SYSTEMS OF WORK, 1895—Continued.

CONTRACT SYSTEM—Concluded.

Marginal number.	Name of institution.	Locality.	Employed in productive labor.		
			Male.	Female.	Total.
	VERMONT.				
1	State Prison	Windsor	134	.....	134
	VIRGINIA.				
2	State Penitentiary	Richmond	a 918	a 82	a 1,000
	WEST VIRGINIA.				
3	Penitentiary	Moundsville	352	.....	352
	WISCONSIN.				
4	State Prison	Waupun	b 423	c 11	d 434
	Total		10,400	199	10,599

PIECE-PRICE SYSTEM.

	INDIANA.				
5	State Reformatory for Women	Indianapolis	.....	32	32
	KENTUCKY.				
6	State Penitentiary	Frankfort	900	20	920
	MASSACHUSETTS.				
7	State Prison	Boston	a 513	.....	a 513
8	Reformatory	Concord Junction	577	.....	577
9	Reformatory Prison for Women	Sherborn	.....	a 150	a 150
	NEW JERSEY.				
10	State Prison	Trenton	a 486	a 10	a 496
	NEW YORK.				
11	Auburn Prison	Auburn	a 847	a 59	a 906
12	Sing Sing State Prison	Sing Sing	f 1,033	.....	f 1,033
13	State Reformatory	Elmira	g 898	.....	g 898
14	Albany County Penitentiary	Albany	700	.....	700
15	Kings County Penitentiary	Brooklyn	825	30	855
16	Monroe County Penitentiary	Rochester	h 281	.....	h 281
17	Onondaga County Penitentiary	Syracuse	160	.....	160
	PENNSYLVANIA.				
18	Montgomery County Prison	Norristown	16	.....	16
	Total		7,236	301	7,537

LEASE SYSTEM.

	ALABAMA.				
19	State Penitentiary	Wetumpka	i 1,508	.....	i 1,508
	FLORIDA.				
20	State Penitentiary	Tallahassee	582	.....	582
	GEORGIA.				
21	State Penitentiary	Atlanta	2,357	67	2,424
	LOUISIANA.				
22	State Penitentiary	Baton Rouge	1,037	35	1,072

a Including those under the public-account system.
b Including 77 under the public-account system.
c Under the public-account system.
d Including 88 under the public-account system.
e Including 11 under the public-account system.

TABLE III.—CONVICTS IN PRISONS AND PENITENTIARIES, BY SYSTEMS OF WORK, 1895—Continued.

CONTRACT SYSTEM—Concluded.

Engaged in prison duties.			Idle and sick.			Total.			Marginal number.
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
21	6	27	.....	.....	.....	155	6	161	1
118	10	128	247	.....	247	a 1,283	a 92	a 1,375	2
54	14	68	105	.....	105	511	14	525	3
73	13	86	95	.....	95	b 591	c 24	d 615	4
2,668	160	2,828	2,337	25	2,362	15,405	384	15,789	
PIECE-PRICE SYSTEM.									
.....	4	4	.....	.....	.....	.....	36	36	5
96	9	105	85	12	97	1,081	41	1,122	6
164	.....	164	23	.....	23	a 700	.....	a 700	7
411	.....	411	39	.....	39	1,027	.....	1,027	8
.....	153	153	.....	15	15	.....	a 318	a 318	9
170	12	182	294	5	299	a 950	a 27	a 977	10
256	32	288	27	8	35	a 1,130	a 99	a 1,229	11
295	.....	295	46	1	47	f 1,374	1	f 1,375	12
316	.....	316	43	.....	43	g 1,257	.....	g 1,257	13
201	65	266	12	2	14	913	67	980	14
95	35	130	132	5	137	1,052	70	1,122	15
43	43	86	20	4	24	h 344	47	h 391	16
50	15	65	100	2	102	310	17	327	17
15	4	19	49	.....	49	80	4	84	18
2,112	372	2,484	870	54	924	10,218	727	10,945	
LEASE SYSTEM.									
.....	.....	.....	4	65	69	i 1,512	65	i 1,577	19
31	19	50	50	.....	50	663	19	682	20
.....	.....	.....	.....	.....	.....	2,357	67	2,424	21
46	2	48	7	.....	7	1,090	37	1,127	22

f Including 662 under the public-account system.
g Including 136 under the public-account system.
h Including 12 under the public-account system.
i Including 536 under the public-account system.

TABLE V.—GOODS PRODUCED OR WORK DONE, 1885 AND 1895.

ALABAMA—PUBLIC-ACCOUNT SYSTEM.

1885.		1895.	
Kind.	Value.	Kind.	Value.
		Brick	$3,682.45
		Erecting and improving buildings.	38,913.49
		Farming	22,316.58

ALABAMA—LEASE SYSTEM.

Mining, coal	$192,000.00	Mining, coal	$622,463.69
Farming	17,400.00		
Stone, broken	5,000.00		

ARIZONA—PUBLIC-ACCOUNT SYSTEM.

Building and repairing prison	$25,000.00	Building and repairing prison	$6,000.00

ARKANSAS—PUBLIC-ACCOUNT SYSTEM.

		Farming	$46,467.82
		Repairing prison	3,134.00
		Wood chopping	4,417.23

ARKANSAS—CONTRACT SYSTEM.

		Farming, etc.	$82,273.24

ARKANSAS—LEASE SYSTEM.

Brick	$26,000.00		
Bricklaying, carpentering, etc	23,250.00		
Cigars	50,000.00		
Farming	64,000.00		
Mining, coal	37,200.00		
Wood chopping	30,000.00		

CALIFORNIA—PUBLIC-ACCOUNT SYSTEM.

Bags, jute	$101,318.52	Bags, jute (grain)	$174,114.13
Stone, quarried and dressed	21,020.00	Stone, quarried and dressed	8,652.00
Brick	4,075.04	Improvements to prison	100,000.00

CALIFORNIA—PIECE-PRICE SYSTEM.

Furniture	$43,277.87		
Harnesses	17,500.00		
Leather, tanning	9,000.00		
Sashes, doors, and blinds	225,000.00		

COLORADO—PUBLIC-ACCOUNT SYSTEM.

Brick	$10,000.00	Brick	$1,900.00
Lime	20,000.00	Lime	5,420.94
		Farming	3,208.50
		Stone, quarried	1,691.08

TABLE III.—CONVICTS IN PRISONS AND PENITENTIARIES, BY SYSTEMS OF WORK, 1895—Concluded.

LEASE SYSTEM—Concluded.

Engaged in prison duties.			Idle and sick.			Total.			Marginal number.
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
90	6	96	39	.....	39	297	6	303	1
40	4	44	360	25	385	1,500	44	1,544	2
207	31	238	460	90	550	7,419	238	7,657	

TABLE IV.—CONVICTS IN 1885 AND 1895.

Engaged in prison duties—Conc'd.			Idle and sick.						Aggregate.						Marginal number.
1895.			1885.			1895.			1885.			1895.			
Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
.....	.....	.....	7	3	10	4	65	69	535	29	564	1,512	65	1,577	3
.....	.....	.....	15	.....	15	5	.....	5	157	.....	157	163	2	165	4
46	.....	46	.....	.....	.....	80	2	82	553	11	564	875	14	889	5
607	12	619	56	.....	56	132	3	135	1,779	29	1,808	2,199	15	2,214	6
100	15	115	10	.....	10	346	.....	346	295	5	300	609	15	624	7
108	5	113	10	.....	10	14	.....	14	277	4	281	425	5	430	8
31	19	50	.....	.....	.....	50	.....	50	231	5	236	663	19	682	9
.....	.....	.....	.....	.....	.....	.....	.....	.....	1,520	40	1,560	2,357	67	2,424	10
533	11	544	71	1	72	57	2	59	2,243	44	2,287	2,306	56	2,362	11
344	4	348	33	3	36	193	.....	193	1,298	177	1,475	1,667	36	1,703	12
219	25	244	22	.....	22	155	.....	155	679	11	690	1,017	25	1,042	13
(b)	(b)	(b)	24	.....	24	30	1	31	856	13	869	855	17	872	14
96	9	105	12	.....	12	85	12	97	1,114	28	1,142	1,081	41	1,122	15
46	2	48	7	2	9	7	.....	7	798	43	841	1,090	37	1,127	16
37	4	41	8	.....	8	21	.....	21	168	3	171	147	4	151	17
64	5	69	21	.....	21	3	.....	3	513	26	539	677	26	703	18
575	153	728	128	1	129	62	15	77	1,201	311	1,512	1,727	318	2,045	19
287	1	288	189	.....	189	267	1	268	1,315	1	1,316	1,379	2	1,381	20
125	6	131	29	1	30	12	2	14	400	11	411	494	8	502	21
36	.....	36	.....	.....	.....	50	.....	50	780	32	812	980	10	990	22
448	12	460	150	35	185	553	11	564	1,620	35	1,655	2,106	53	2,159	23
90	6	96	12	.....	12	39	.....	39	304	3	307	297	6	303	24
62	.....	62	21	2	23	5	1	6	128	2	130	77	1	78	25
13	2	15	4	.....	4	1	.....	1	128	2	130	181	2	183	26
215	26	241	100	.....	100	294	5	299	1,012	38	1,050	1,207	41	1,248	27
40	1	41	.....	.....	.....	1	.....	1	100	.....	100	148	1	149	28
1,584	230	1,814	799	66	865	861	33	894	6,125	375	6,500	8,089	352	8,441	29
75	35	110	5	.....	5	50	8	58	1,020	65	1,085	1,125	83	1,208	30
387	33	420	51	.....	51	627	.....	627	1,950	24	1,974	2,052	33	2,085	31
221	.....	221	9	.....	9	17	3	20	272	.....	272	396	3	399	32
738	182	920	622	36	658	1,830	33	1,863	3,362	366	3,728	4,526	327	4,853	33
12	2	14	3	.....	3	5	.....	5	238	.....	238	153	2	155	34
55	40	95	20	2	22	21	4	25	802	45	847	970	44	1,014	35
28	2	30	.....	.....	.....	3	.....	3	c 90	c 3	c 93	115	2	117	36
40	4	44	.....	.....	.....	360	25	385	1,278	45	1,323	1,500	44	1,544	37
208	6	214	.....	.....	.....	89	.....	89	2,877	45	2,922	4,057	68	4,125	38
61	9	70	5	.....	5	.....	1	1	156	9	165	237	10	247	39
118	10	128	.....	.....	.....	247	.....	247	956	68	1,024	1,283	92	1,375	40
126	4	130	7	.....	7	22	.....	22	82	.....	82	412	4	416	41
54	14	68	15	.....	15	105	.....	105	255	6	261	511	14	525	42
73	13	86	16	.....	16	95	.....	95	443	13	456	591	24	615	43
7,902	902	8,804	2,481	152	2,633	6,798	227	7,025	39,910	1,967	41,877	52,256	1,988	54,244	

c Dakota Territory.

TABLE V.—GOODS PRODUCED OR WORK DONE, 1885 AND 1895—Continued.

IOWA—PUBLIC-ACCOUNT SYSTEM.

1885.		1895.	
Kind.	Value.	Kind.	Value.
Farming	$2,000.00	Farming	$1,800.00
Stone, dressed	15,000.00	Stone, dressed	80,763.00
		Masonry work	11,175.00
		Stone, broken	1,500.00

IOWA—CONTRACT SYSTEM.

Agricultural implements	$120,590.00	Agricultural implements	$150,870.00
Chairs	100,000.00	Chairs	90,216.00
Boots and shoes	161,000.00	Erecting buildings	1,550.00

KANSAS—PUBLIC-ACCOUNT SYSTEM.

Building and repairing prison	$158,000.00	Building and repairing prison	$59,000.00
Clothing (for convicts)	24,964.72	Clothing (for convicts)	14,708.00
Mining, coal	85,630.05	Mining, coal	92,624.25

KANSAS—CONTRACT SYSTEM.

Boots and shoes	$70,125.00	Shoes	$26,361.00
Wagons	720,000.00	Furniture	28,360.00
		Horse collars	20,040.00

KENTUCKY—PUBLIC-ACCOUNT SYSTEM.

Building prison	$37,200.00		

KENTUCKY—PIECE-PRICE SYSTEM.

		Bedsteads	$17,800.00
		Chairs	152,720.00

KENTUCKY—LEASE SYSTEM.

Brooms	$30,000.00		
Building railroad	152,000.00		
Chairs, tables, etc	18,000.00		
Laundering	1,380.00		
Mining, coal	175,000.00		
Shoes	24,900.00		
Wagon driving	10,000.00		

LOUISIANA—LEASE SYSTEM.

Farming	$56,000.00	Farming, repairing levee, repairing railroad, and pantaloons.	$165,647.85
Repairing levee	42,000.00		
Repairing railroad	254,000.00		

MAINE—PUBLIC-ACCOUNT SYSTEM.

Carriages and sleighs	$45,000.00	Carriages, wagons, and sleighs	$14,590.00
Harnesses	27,000.00	Harnesses	9,572.00
		Brooms and brushes	18,764.13
		Furniture	900.00

TABLE V.—GOODS PRODUCED OR WORK DONE, 1885 AND 1895—Continued.

CONNECTICUT—CONTRACT SYSTEM.

1885.		1895.	
Kind.	Value.	Kind.	Value.
Boots and shoes	$109,000.00	Boots and shoes	$242,375.00

FLORIDA—LEASE SYSTEM.

Naval stores	$100,000.00	Naval stores	$69,648.00
		Building railroad	24,375.00
		Improvements, etc	3,900.00
		Mining, phosphate	185,250.00

GEORGIA—LEASE SYSTEM.

Brick	$172,000.00	Brick	$6,000.00
Farming	18,000.00	Farming	31,436.00
Lumber	34,000.00	Lumber	136,980.00
Building railroad	62,000.00	Ditching and clearing land, wood chopping, etc.	3,000.00
Lime	7,000.00		
Mining, coal and iron ore (and making pig iron).	142,000.00		
Mining, iron ore	25,000.00		

ILLINOIS—PUBLIC-ACCOUNT SYSTEM.

		Brick	$15,140.00
		Brooms	24,560.00
		Chairs	183,155.00
		Cigars	22,507.00
		Cooperage	89,105.00
		Harnesses	158,643.00
		Hollow ware	128,367.40
		Hosiery	86,289.90
		Pearl button blanks	7,501.16
		Stone	58,272.16

ILLINOIS—CONTRACT SYSTEM.

Boots and shoes	$1,530,000.00	Boots and shoes	$158,000.00
Barrels, etc	375,000.00	Willow ware	97,000.00
Brick	25,000.00		
Fence wire, barbed	318,000.00		
Harnesses and saddlery	149,000.00		
Hollow ware	10,000.00		
Hosiery and overalls	98,000.00		
Stone and marble (dressed) and monuments.	500,000.00		

INDIANA—CONTRACT SYSTEM.

Boots and shoes	$275,000.00	Boots and shoes	$311,205.00
Saddletrees	10,000.00	Saddletrees	15,187.00
Chairs and baby cradles	168,000.00	Chairs	91,566.50
Boots and shoes, men's and women's	297,716.40	Bicycles	52,365.00
Brooms	31,300.00	Brushes and wire goods	72,440.00
Hardware, fancy	390,000.00	Cooperage	73,572.00
Hosiery and cloth goods	205,293.92	Hollow ware	183,364.50
Tierces, pork and lard	174,497.50		

INDIANA—PIECE-PRICE SYSTEM.

Cane-seating chairs	$5,460.00	Cane-seating chairs	$1,132.00
Family sewing	2,600.00	Family sewing	2,316.30
Laundering	5,200.00	Laundering	1,138.78
Overalls and shirts	3,085.50	Overalls and jumpers	3,133.80
Toeing stockings	147.75		

TABLE V.—GOODS PRODUCED OR WORK DONE, 1885 AND 1895—Continued.

IOWA—PUBLIC-ACCOUNT SYSTEM.

1885.		1895.	
Kind.	Value.	Kind.	Value.
Farming	$2,000.00	Farming	$1,800.00
Stone, dressed	15,000.00	Stone, dressed	80,768.40
		Masonry work	11,175.00
		Stone, broken	1,500.00

IOWA—CONTRACT SYSTEM.

Agricultural implements	$120,500.00	Agricultural implements	$159,870.00
Chairs	100,000.00	Chairs	90,216.00
Boots and shoes	161,000.00	Erecting buildings	1,550.00

KANSAS—PUBLIC-ACCOUNT SYSTEM.

Building and repairing prison	$158,000.00	Building and repairing prison	$59,000.00
Clothing (for convicts)	24,964.72	Clothing (for convicts)	14,700.00
Mining, coal	85,630.05	Mining, coal	92,624.25

KANSAS—CONTRACT SYSTEM.

Boots and shoes	$70,125.00	Shoes	$26,361.00
Wagons	720,000.00	Furniture	28,360.00
		Horse collars	20,040.00

KENTUCKY—PUBLIC-ACCOUNT SYSTEM.

Building prison	$37,200.00		

KENTUCKY—PIECE-PRICE SYSTEM.

		Bedsteads	$17,800.00
		Chairs	152,728.00

KENTUCKY—LEASE SYSTEM.

Brooms	$30,000.00		
Building railroad	152,000.00		
Chairs, tables, etc	18,000.00		
Laundering	1,380.00		
Mining, coal	175,000.00		
Shoes	24,900.00		
Wagon driving	10,000.00		

LOUISIANA—LEASE SYSTEM.

Farming	$56,000.00	Farming, repairing levee, repairing railroad, and pantaloons.	$165,647.85
Repairing levee	42,000.00		
Repairing railroad	254,000.00		

MAINE—PUBLIC-ACCOUNT SYSTEM.

Carriages and sleighs	$45,000.00	Carriages, wagons, and sleighs	$14,590.00
Harnesses	27,000.00	Harnesses	9,572.00
		Brooms and brushes	18,764.13
		Furniture	900.00

TABLE V.—GOODS PRODUCED OR WORK DONE, 1885 AND 1895—Continued.

MARYLAND—CONTRACT SYSTEM.

1885.		1895.	
Kind.	Value.	Kind.	Value.
Marble, dressed	$150,000.00	Marble, dressed	$140,000.00
Shoes, women's and girls'	125,000.00	Shoes, men's, boys', and youths'	420,000.30
Stoves and hollow ware	120,000.00	Iron hollow ware	120,000.00

MASSACHUSETTS—PUBLIC-ACCOUNT SYSTEM.

		Brushes	$14,119.00
		Butter	874.34
		Harnesses	19,946.00
		Laundering	3,308.80
		Poultry, eggs, etc	115.60
		Shoes, men's	128,139.20
		Trunks	8,844.00

MASSACHUSETTS—CONTRACT SYSTEM.

Beds, spring and mantel	$71,415.70		
Moldings, wooden	7,584.30		

MASSACHUSETTS—PIECE-PRICE SYSTEM.

Boots and shoes, men's and boys'	$199,720.00	Buttons	$7,920.77
Clothing, knit goods, and laundering.	23,250.00	Chairs	294,120.00
		Shirts	100,607.75
Harnesses and saddlery	66,250.00	Shoes, men's	384,870.90
Pantaloons	52,512.00	Shoes, women's	72,066.75

MICHIGAN—PUBLIC-ACCOUNT SYSTEM.

		Boxes, etc	$7,040.61
		Brooms, etc	31,530.50
		Chairs, etc., caned	4,295.00
		Clothing	2,148.35
		Furniture	76,632.00

MICHIGAN—CONTRACT SYSTEM.

Agricultural implements	$280,000.00	Agricultural implements	$135,000.00
Boots and shoes	45,000.00	Hosiery, gloves, and mittens	38,500.00
Chairs	28,778.00	Monuments	40,830.00
Cigars	165,000.00	Wagons	72,000.00
Wagons	300,000.00		

MICHIGAN—PIECE-PRICE SYSTEM.

Brooms	$35,000.00		

MINNESOTA—PUBLIC-ACCOUNT SYSTEM.

		Binding cord	$150,000.00

MINNESOTA—CONTRACT SYSTEM.

Sashes, doors, and blinds	$50,000.00	Boots and shoes	$175,000.00
Threshing machines	195,500.00		

MISSISSIPPI—PUBLIC-ACCOUNT SYSTEM.

		Clothing (for convicts)	$9,506.00
		Farming	232,400.00
		Shoes (for convicts)	2,16[illegible]

TABLE V.—GOODS PRODUCED OR WORK DONE, 1885 AND 1895—Continued.

MISSISSIPPI—LEASE SYSTEM.

1885.		1895.	
Kind.	Value.	Kind.	Value.
Building railroad	$82,000.00		
Farming and clearing land	156,000.00		
Gravel digging	8,000.00		
Lumber	10,000.00		
Wagons, furniture, brick, etc	68,000.00		

MISSOURI—CONTRACT SYSTEM.

Harnesses and saddlery	$150,000.00	Harnesses, saddlery, and whips	$148,790.00
Overalls	45,000.00	Overalls	37,340.00
Saddletrees	175,000.00	Saddletrees	37,345.00
Boots and shoes	765,000.00	Brick	17,394.50
		Coats	2,430.00
		Erecting buildings	5,504.50
		Jackets	1,260.00
		Shoes	929,357.47
		Stone, dressed	1,074.50
		Stone, quarried	3,566.50

NEBRASKA—LEASE SYSTEM.

Harnesses and collars	$27,000.00	Harnesses, collars, etc	$30,080.00
Agricultural implements	68,000.00	Cooperage	39,560.25
Brooms and trunks	4,000.00	Stoves	2,796.00
Clothing	15,000.00		
Laundering	6,000.00		
Stone, dressed	28,000.00		

NEVADA—PUBLIC-ACCOUNT SYSTEM.

Stone, quarried and dressed	$7,766.37	Stone, quarried and dressed	$307.96
Boots and shoes	13,605.65	Improvements to prison	10,300.00

NEW HAMPSHIRE—CONTRACT SYSTEM.

Bedsteads	$100,000.00	Chairs	$128,862.50

NEW JERSEY—PUBLIC-ACCOUNT SYSTEM.

Clothing (for convicts)	$970.20	Clothing, shoes, etc. (for convicts)	$5,959.60
Stone, quarried and crushed	2,317.90	Stone, broken	3,500.00
		Erecting buildings	1,123.00

NEW JERSEY—PIECE-PRICE SYSTEM.

Brushes, scrub, shoe, and stove	$34,560.00	Brushes	$85,455.60
Hosiery	10,800.00	Hosiery, cotton	15,861.30
Collars, cuffs, shirts, and laundering	232,084.40	Mats and matting	46,408.49
Pantaloons (coarse) and working shirts.	129,000.00	Pantaloons, common	78,243.20
		Shirts, men's coarse	95,186.88
Shoes, men's, girls', and children's	180,000.00	Shoes, infants'	73,530.04

NEW MEXICO—PUBLIC-ACCOUNT SYSTEM.

		Brick	$6,035.25
		Clothing	660.00
		Erecting and improving buildings	21,485.55
		Farming	1,260.00
		Lime	250.00
		Road making	960.80
		Sewer pipe	2,000.00
		Shoes	230.00
		Well digging	400.00

TABLE V.—GOODS PRODUCED OR WORK DONE, 1885 AND 1895—Continued.

NEW MEXICO—LEASE SYSTEM.

1885.		1895.	
Kind.	Value.	Kind.	Value.
Stone, quarried, ditch digging, etc.	$16,000.00		

NEW YORK—PUBLIC-ACCOUNT SYSTEM.

Brooms	$19,328.54	Brooms	$4,090.00
Clothing, men's and boys'	328,714.19	Clothing, men's and boys'	298,547.68
Brushes, scrub and shoe	46,028.99	Baskets, willow and rattan	9,207.00
Shoes, men's	235,785.76	Boots and shoes, men's	2,158.20
		Brush fiber and curled hair products.	74,158.90
		Candy and tobacco pails	39,327.48
		Clothing for State institutions	18,442.59
		Clothing, women's	100,300.60
		Erecting and improving buildings	31,200.00
		Farming	1,500.00
		Hardware	74,048.48
		Pins and combs, horn	3,207.65
		Shirts, men's white	2,998.88
		Shoes for State institutions	10,258.98
		Toys and novelties	39,162.22
		Wooden shovels	76.25

NEW YORK—CONTRACT SYSTEM.

Bolts, iron	$45,000.00		
Boots and shoes, men's	862,400.00		
Boots and shoes, men's and women's	225,000.00		
Brushes, scrub, shoe, etc	54,000.00		
Hames, wooden	35,000.00		
Hardware, saddlery	445,000.00		
Hollow ware	120,000.00		
Horse collars	48,215.00		
Laundering	a 300,000.00		
Shoes, men's and women's	1,587,500.00		
Shoes, women's and boys'	577,500.00		
Stoves	603,960.00		

NEW YORK—PIECE-PRICE SYSTEM.

		Bags	$82,650.00
		Bolts, iron	28,000.00
		Brooms	60,000.00
		Brushes, scrub, shoe, and stove	81,067.50
		Buttons	24,371.60
		Cane-seating chairs	103,708.80
		Chairs	81,282.00
		Clothing, men's, youths', and boys'	50,000.00
		Clothing, women's	110,626.00
		Curled hair and brush fiber	23,602.14
		Furniture	90,737.00
		Hollow ware	60,000.00
		Hosiery	119,000.00
		Iron castings	48,000.00
		Machinery and tools	10,636.31
		Marble, dressed and polished	39,462.00
		Pantaloons	62,080.00
		Pins, horn	10,325.00
		Plumbers' supplies, etc	130,814.00
		Rags, seamed, skirted, and assorted.	45,000.00
		Shirts, men's	232,702.00
		Shirts, men's laundered	134,205.75
		Shoes, men's and boys'	176,807.70
		Stone, crushed	2,500.00
		Umbrellas	90,000.00
		Wooden goods	102,191.22

a Value of shirts made and laundered.

OODS PRODUCED OR WORK DONE, 1885 AND 1895—Conti

NORTH CAROLINA—PUBLIC-ACCOUNT SYSTEM.

1885.		1895.
	Value.	Kind.
.....	$13,725.40	Brick .....
.....	18,714.41	Farming .....
nnsion	11,000.00	Wagons, etc .....
.....	6,500.00	.....
s	6,347.13	.....
.....	4,785.19	.....

NORTH CAROLINA—LEASE SYSTEM.

.....	$200,000.00	.....

OHIO—PUBLIC-ACCOUNT SYSTEM.

.....	$13,403.39	.....
.....	50,836.13	.....
.....	30,510.32	.....
.....	4,332.67	.....

OHIO—CONTRACT SYSTEM.

.....	$135,939.00	Hardware, saddlery .....
.....	60,060.00	Stoves .....
.....	36,000.00	Brooms and brushes .....
.....	99,910.00	Farm and garden tools .....
s	62,000.00	Hardware, wagon, and foundry work.
.....	18,000.00	
s, etc	75,700.00	Shafts and spokes .....
.....	31,500.00	.....
.....	2,681.00	.....
.....	46,500.00	.....
ngs	209,884.00	.....
joiners'	44,558.00	.....

OHIO—PIECE-PRICE SYSTEM.

TABLE V.—GOODS PRODUCED OR WORK DONE, 1885 AND 1895—Continued.

PENNSYLVANIA—PUBLIC-ACCOUNT SYSTEM.

1885.		1895.	
Kind.	Value.	Kind.	Value.
Brooms	$304.50	Brooms, etc	$132.39
Cane-seating chairs	7,416.50	Cane-seating chairs	6,265.56
Carpeting	17,122.00	Carpeting	4,153.48
Carpeting, rag	27,094.60	Carpeting, rag	40,718.73
Carpeting, rag and ingrain	23,470.40	Carpeting, rag and ingrain	7,500.00
Cigars	16,243.00	Cigars	5,155.47
Hosiery	339.75	Hosiery	85,951.72
Baskets	181.34	Blacksmithing	4,783.20
Boots and shoes	1,485.64	Blankets	652.00
Boots and shoes, men's and women's	50,442.00	Brushes, etc	1,555.46
Carpeting, rag and jute	7,810.14	Brushes, scrubbing	2,820.50
Checks, cotton	6,385.94	Carpentering	6,399.98
Hosiery, cotton	1,590.00	Carpeting, ingrain	603.20
Hosiery, woolen and cotton	3,965.00	Checks	63.34
Nets, fishing	381.81	Clothing	10,639.75
Shoes, men's	15,757.50	Drillings	11.04
Stone	23,822.40	Farming	10,114.25
		Flannels	1,381.66
		Ginghams	197.98
		Illuminating gas	25,959.00
		Jeans	1,429.00
		Machine-shop products	1,354.20
		Mats and matting	105,383.51
		Muslins	853.47
		Sheetings	25.80
		Shirts	22.00
		Shoes	13,668.45
		Shoes, men's and boys'	8,705.63
		Shoes, men's brogans	2,926.80
		Shoes, women's	3,745.02
		Soap	2,681.04
		Stone masonry	3,867.00
		Stone, quarried	9,138.00
		Tickings	305.03
		Tinware	1,357.86

PENNSYLVANIA—CONTRACT SYSTEM.

Brooms	$56,000.00		
Cigars	64,000.00		
Iron, architectural	20,000.00		
Shoes, men's, women's, and girls'	356,452.81		

PENNSYLVANIA—PIECE-PRICE SYSTEM.

Hosiery, cotton	$158,085.00	Hosiery, cotton	$10,040.40
Hosiery, woolen and cotton	6,050.00	Brooms, etc	64,091.91
		Mops	1,086.37

RHODE ISLAND—CONTRACT SYSTEM.

Boots and shoes	$75,000.00	Shoes, men's and boys'	$151,488.40
Wire goods (screens and railings)	6,000.00	Wire goods (screens and railings)	8,000.00

SOUTH CAROLINA—PUBLIC-ACCOUNT SYSTEM.

Building State canal	$80,000.00	Brick	$15,000.00
Clothing (for convicts)	4,457.09	Clothing (for convicts)	2,000.00
Farming	10,000.00	Farming	68,010.00
Repairing prison	5,000.00	General labor	17,114.36

SOUTH CAROLINA—CONTRACT SYSTEM.

Hosiery	$50,000.00	Hosiery	$279,000.00
Boots and shoes	150,000.00		

TABLE V.—GOODS PRODUCED OR WORK DONE, 1885 AND 1895—Continued.

SOUTH CAROLINA—LEASE SYSTEM.

1885.		1895.	
Kind.	Value.	Kind.	Value.
Mining, phosphate	$23,560.00	Farming, etc	$166,189.33

SOUTH DAKOTA—PUBLIC-ACCOUNT SYSTEM.

		Farming	$2,500.00
		Stone, dressed	2,133.60
		Stone, quarried	3,000.00

SOUTH DAKOTA—CONTRACT SYSTEM.

Stone, dressed	a $11,577.36		

TENNESSEE—LEASE SYSTEM.

Farming	$6,500.00	Farming	$7,500.00
Mining, coal	451,500.00	Mining, coal	298,750.00
Mining, iron ore	134,000.00	Coke	93,750.00
Wagons	550,000.00	Grading railroad, etc	89,000.00
		Labor and camp duty at mines	13,500.00
		Saddlery	125,000.00
		Stoves and hollow ware	45,000.00
		Work for State	7,800.00

TEXAS—PUBLIC-ACCOUNT SYSTEM.

Engines, boilers, pumps, etc	$16,187.00	Engines, boilers, pumps, etc	$143,287.82
Furniture and lumber	11,310.00	Furniture and lumber	274,631.49
Cloth (for prison)	16,480.00	Cotton and woolen cloth and hosiery (for convicts).	37,763.46
Pig iron and castings	129,000.00	Pig iron	50,837.50
Shoes (for convicts)	10,800.00	Boots and shoes (for convicts)	26,051.52
Wagons and cotton presses	48,965.00	Wagons, buggies, etc	81,748.69
Mining, iron ore (and burning charcoal), etc.	85,000.00	Mining, iron ore	4,000.50
Stone, quarried	40,000.00	Burning charcoal	27,453.85
		Blacksmith-shop products	4,286.92
		Boilers	817.05
		Building railroad	43,431.20
		Building reservoir	2,712.75
		Carpentering and planing-mill products.	3,181.67
		Cast-iron water pipes	53,360.00
		Chewing tobacco (for convicts)	8,607.26
		Clothing, mattresses, and shoes	60,019.70
		Farming	96,800.80
		Foundry and machine-shop products.	20,456.04
		Hollow ware, castings, etc	23,701.37
		Paint shop	2,606.38
		Pattern shop	1,152.49
		Tin shop	1,565.64
		Miscellaneous, labor	25,000.00

TEXAS—CONTRACT SYSTEM.

Farming	b $220,000.00	Farming	$721,791.18
Building railroad	b 45,000.00	Railroad labor	148,750.00
Saddletrees and stirrups	30,000.00		

VERMONT—PUBLIC-ACCOUNT SYSTEM.

		Marble, dressed	$20,000.00

a Dakota Territory.

b Value of labor only.

TABLE V.—GOODS PRODUCED OR WORK DONE, 1885 AND 1895—Concluded.

VERMONT—CONTRACT SYSTEM.

1885.		1895.	
Kind.	Value.	Kind.	Value.
Marble (dressed) and monuments	$30,000.00	Shoes, boys' and youths'	$16,885.00
Shoes, women's	90,837.75	Shoes, children's	51,269.00
		Shoes, women's and misses'	245,446.50

VIRGINIA—PUBLIC-ACCOUNT SYSTEM.

		Farming	$12,000.00
		Roadmaking	13,200.00

VIRGINIA—CONTRACT SYSTEM.

Shoes, women's	$631,289.95	Shoes, women's and misses'	$1,054,421.91
Tobacco, plug and twist	60,000.00	Tobacco, plug and twist	45,000.00
Barrels, etc	30,000.00		
Building railroad	65,000.00		

WASHINGTON—PUBLIC-ACCOUNT SYSTEM.

		Building and improving prison	$23,657.45
		Burlap	439.95
		Grain bags, jute	93,130.83
		Hop cloth	8,621.34
		Kiln cloth	27.11
		Matting	235.60
		Ore bags, jute	76.72
		Sewing twine	63.12
		Wool bags	1,578.21

WASHINGTON—LEASE SYSTEM.

Sashes, doors, and blinds	$30,000.00		

WEST VIRGINIA—CONTRACT SYSTEM.

Brooms and leather whips	$125,000.00	Brooms	$65,000.00
Wagons	150,000.00	Fly nets, etc	50,000.00
		Leather whips	83,300.00
		Pantaloons	43,750.00

WISCONSIN—PUBLIC-ACCOUNT SYSTEM.

		Hosiery	$29,741.50
		Overalls	47,385.00

WISCONSIN—CONTRACT SYSTEM.

Boots and shoes	$360,000.00	Boots and shoes	$600,000.00

TABLE VI.—VALUE OF GOODS PRODUCED OR WORK DONE, BY SYSTEMS OF WORK, 1885 AND 1895.

PUBLIC-ACCOUNT SYSTEM.

State.	Value.		State.	Value.	
	1885.	1895.		1885.	1895.
Alabama	.....	$64,912.81	New Mexico	.....	$33,281.60
Arizona	$25,000.00	6,000.00	New York	$629,857.48	708,744.91
Arkansas	.....	54,019.05	North Carolina	61,072.13	190,000.00
California	126,413.56	282,766.13	Ohio	99,082.51	.....
Colorado	30,000.00	12,220.52	Oregon	12,000.00	21,533.33
Illinois	.....	773,540.62	Pennsylvania	203,812.52	370,521.52
Iowa	17,000.00	95,243.40	South Carolina	99,457.09	102,124.36
Kansas	268,594.77	166,324.25	South Dakota	.....	7,633.60
Kentucky	37,200.00	.....	Texas	357,742.00	993,474.10
Maine	72,000.00	43,826.13	Vermont	.....	20,000.00
Massachusetts	.....	175,347.09	Virginia	.....	25,200.00
Michigan	.....	121,646.55	Washington	.....	127,820.33
Minnesota	.....	150,000.00	Wisconsin	.....	77,126.50
Mississippi	.....	244,066.00			
Nevada	21,372.02	10,607.96	Total	2,063,892.18	4,888,563.36
New Jersey	3,288.10	10,582.60			

CONTRACT SYSTEM.

Arkansas	.....	$82,273.24	Ohio	$322,732.00	$444,197.20
Connecticut	$109,000.00	242,375.00	Oregon	108,000.00	22,500.00
Illinois	3,005,000.00	255,000.00	Pennsylvania	496,452.81	.....
Indiana	1,551,807.82	799,700.00	Rhode Island	81,000.00	159,488.40
Iowa	381,590.00	251,636.00	South Carolina	200,000.00	279,000.00
Kansas	790,125.00	74,761.00	South Dakota	a11,577.36	.....
Maryland	395,000.00	680,000.30	Texas	295,000.00	870,541.18
Massachusetts	79,000.00	.....	Vermont	120,837.75	313,600.50
Michigan	818,778.00	286,330.00	Virginia	786,289.95	1,099,421.91
Minnesota	245,500.00	175,000.00	West Virginia	275,000.00	242,050.00
Missouri	1,135,000.00	1,184,062.47	Wisconsin	360,000.00	600,000.00
New Hampshire	100,000.00	128,862.50			
New York	4,903,575.00	.....	Total	17,071,265.69	8,190,799.70

PIECE-PRICE SYSTEM.

California	$294,777.87	.....	New York	.....	$1,999,769.02
Indiana	16,493.25	$7,720.88	Ohio	$45,648.00	287,974.98
Kentucky	.....	170,528.00	Pennsylvania	164,135.00	75,218.68
Massachusetts	341,732.00	859,586.17			
Michigan	35,000.00	.....	Total	1,484,230.52	3,795,483.24
New Jersey	586,444.40	394,685.51			

LEASE SYSTEM.

Alabama	$214,400.00	$622,463.60	New Mexico	$16,000.00	.....
Arkansas	230,450.00	.....	North Carolina	200,000.00	.....
Florida	100,000.00	283,173.00	South Carolina	23,560.00	$166,189.33
Georgia	460,000.00	177,416.00	Tennessee	1,142,000.00	680,300.00
Kentucky	411,280.00	.....	Washington	30,000.00	.....
Louisiana	352,000.00	165,647.85			
Mississippi	324,000.00	.....	Total	3,651,690.00	2,167,626.03
Nebraska	148,000.00	72,436.25			

TABLE VII.—SUMMARY OF VALUE OF GOODS PRODUCED OR WORK DONE, BY SYSTEMS OF WORK, 1885 AND 1895.

Systems of work.	Value.	
	1885.	1895.
Public-account system	$2,063,892.18	$4,888,563.36
Contract system	17,071,265.69	8,190,799.70
Piece-price system	1,484,230.52	3,795,483.24
Lease system	3,651,690.00	2,167,626.03
Total	24,271,078.39	19,042,472.33

a Dakota Territory.

TABLE VIII.—SUMMARY OF VALUE OF GOODS PRODUCED OR WORK DONE, BY STATES.

State.	Value.		State.	Value.	
	1885.	1895.		1885.	1895.
Alabama	$214,400.00	$687,376.41	Nevada	$21,372.02	$10,607.98
Arizona	25,000.00	6,000.00	New Hampshire	100,000.00	128,862.50
Arkansas	230,450.00	136,292.29	New Jersey	589,732.50	405,268.11
California	421,191.43	282,766.13	New Mexico	16,000.00	33,281.60
Colorado	30,000.00	12,220.52	New York	5,533,432.48	2,708,513.93
Connecticut	109,000.00	242,375.00	North Carolina	261,072.13	190,000.00
Florida	100,000.00	283,173.00	Ohio	967,462.51	732,172.18
Georgia	460,000.00	177,416.00	Oregon	120,000.00	44,033.33
Illinois	3,005,000.00	1,028,540.62	Pennsylvania	864,400.33	445,740.20
Indiana	1,568,301.07	807,420.88	Rhode Island	81,000.00	159,488.40
Iowa	398,590.00	346,879.40	South Carolina	323,017.09	547,313.69
Kansas	1,058,719.77	241,085.25	South Dakota	a 11,577.36	7,633.60
Kentucky	448,480.00	170,528.00	Tennessee	1,142,000.00	680,300.00
Louisiana	352,000.00	165,647.85	Texas	652,742.00	1,864,015.28
Maine	72,000.00	43,826.13	Vermont	120,837.75	333,600.50
Maryland	395,000.00	680,000.30	Virginia	786,289.95	1,124,621.91
Massachusetts	420,732.00	1,034,933.26	Washington	30,000.00	127,820.33
Michigan	853,778.00	407,976.55	West Virginia	275,000.00	242,050.00
Minnesota	245,500.00	325,000.00	Wisconsin	360,000.00	677,126.50
Mississippi	324,000.00	244,066.00			
Missouri	1,135,000.00	1,184,062.47	Total	24,271,078.39	19,042,472.33
Nebraska	148,000.00	72,436.25			

a Dakota Territory.

ABSTRACT OF LAWS RELATING TO CONVICT LABOR PASSED SINCE 1885.

ALABAMA.—Act of February 18, 1895, provides in substance as follows: State convicts shall be hired or employed within the State as may be determined by the board of inspectors with the approval of the governor. All hiring made must be per capita. Not less than 50 State convicts shall be hired to one person or kept at one prison, except that where convicts are worked in the county where convicted, less than 50 may be worked at one place. The board of inspectors may make contracts for the hire of State convicts by the day, month, or year, or a term of years, the State in such cases controlling and supporting the convicts.

County convicts may be worked on public roads, bridges, and other public works in the county, and may be hired to labor anywhere within the State.

ARIZONA.—In section 2424 of the Revised Statutes of 1887, originally part of an act approved March 10, 1887, it is provided that the board of commissioners shall lease the labor of the convicts in the Territorial Prison to be employed within the prison walls in such manufacturing enterprises as the board may deem proper.

Section 9 of act No. 19 of the acts of 1895, approved March 8, 1895, provides that the board of control of the Territorial institutions shall have power to lease on shares or for cash the property, buildings, and lands belonging to the Territory for the purpose of furnishing employment for the inmates of the Territorial Prison and reform school, and to make contracts to furnish the labor of the inmates of said institutions either within or outside the walls of the prison or the confines of the reform school. The labor of said inmates shall not be leased when it is required upon the buildings or properties of said institutions.

ARKANSAS.—Sections 5499 to 5506, inclusive, of the Digest of 1894, originally forming part of an act approved March 21, 1893, direct that the board of commissioners of the penitentiary shall employ the convicts either within or outside the walls of the penitentiary, and shall purchase or lease and equip a farm or farms, upon which convicts who are not suitable for contract labor and who can not be made self-supporting within the walls shall be worked on State account; that the system of labor shall be the State account system or the contract system, or partly one and partly the other, but no contract shall be let if equally remunerative employment can be furnished by the State and worked on State account, and that said board shall establish within the walls of the penitentiary such industries as are for the

best interests of the State, and as will furnish the charitable institutions of the State with such articles as are necessary to be used therein.

The board is authorized to have State coal lands opened and operated by convict labor on the State account system. It is also authorized to employ convicts on State timber lands in clearing and fencing the same and cutting the timber, and to purchase a tract of land on which there is an abundant supply of good building stone, and to employ convicts thereon in cutting, quarrying, and otherwise preparing the stone for use.

CALIFORNIA.—In chapter 208 of the acts of 1895, approved March 28, 1895, provision is made for establishing at one or both of the State prisons a rock or stone crushing plant, to be operated by convict labor, with such free labor as is necessary for superintendence and direction.

COLORADO.—Section 3447 of the Annotated Statutes of 1891, originally part of an act approved April 2, 1887, forbids the employment of the penitentiary or prison convicts outside the prison walls or grounds in the vicinity of such penitentiary or prison, and provides that the board of penitentiary commissioners shall not hire out any convict for the purpose of carrying on an industry that comes in competition with free labor in the State.

Section 4163, originally part of an act approved April 19, 1889, provides that so far as practicable the industries upon which the convicts of the State reformatory shall be employed shall be the manufacture of articles not elsewhere manufactured in the State.

CONNECTICUT.—Chapter 153 of the acts of 1895, approved May 23, 1895, provides that no convict shall be employed in or about the manufacture or preparation of any drugs, medicines, food or food material, cigars or tobacco, or any preparation thereof, pipes, chewing gum, or any other article or thing used for eating, drinking, chewing, or smoking, or for any other use within or through the mouth of any human being.

IDAHO.—Section 3 of article 13 of the constitution of the State, adopted in 1889, provides that all labor of convicts shall be done within the prison walls, except where the work is done on public works under the direct control of the State.

Section 2 of an act approved February 3, 1891, as amended by an act approved March 6, 1893, empowers the board of State prison commissioners, either by direct expenditure or by contract, to provide for the employment of all convicts confined in the penitentiary, and provides that no contract shall be let to perform any labor which will conflict with any existing manufacturing industries in the State.

KANSAS.—In sections 35 to 43, inclusive, of chapter 152 of the acts of 1891, approved March 11, 1891, the following provisions are made: The party hiring the labor of the convicts in the penitentiary shall be required, so far as practicable, to teach the prisoner as much of the trade at which he is employed as will enable him to work at the same when discharged. No contract shall be made for the employment of the prisoners outside of the prison grounds. The warden of the penitentiary is authorized to employ the labor of such convicts as are not required in other departments in mining coal upon the lands belonging to the State upon which the penitentiary is located and adjacent thereto, and to use such portion of the convict labor as may be necessary to keep the wagon road from the penitentiary to the city of Leavenworth in repair.

Section 5 of chapter 46 of the acts of 1895, approved March 8, 1895, makes it unlawful to allow convicts in the penitentiary to perform labor for private citizens outside the prison grounds, for hire or otherwise, and makes it the duty of the warden to employ the surplus convict labor in extending and repairing the State road and upon other work exclusively for the benefit of the State.

KENTUCKY.—Sections 253 and 254 of the constitution, adopted in 1891, provide that the labor only of penitentiary convicts may be leased and must be performed within the prison walls. Also, that the employment of convicts outside the walls can not be authorized except upon public works, or when, during pestilence or in

case of the destruction of the prison building, they can not be confined in the penitentiary.

LOUISIANA.—Act No. 114 of the acts of 1890, approved July 10, 1890, provides for the extending of the lease for the labor of the penitentiary convicts for a period of ten years from March 3, 1891, but limits the employment of such labor to the levees, railroads, and other works of public improvement.

It absolutely prohibits the subletting, rental-out, or use by the lessee himself of the convict labor in the cultivation, planting, or gathering of any agricultural crop, such as rice, sugar, cotton, or corn.

Chapter 134 of the acts of 1894, approved July 11, 1894, permits the employment of the penitentiary convicts on plantation or farm work, or any other work not provided for in act No. 114 of the acts of 1890, when it shall have been demonstrated to the governor that employment for the convicts can not be obtained on the public levees of the State.

MASSACHUSETTS.—In chapter 447 of the acts of 1887, approved June 16, 1887, the following provisions were made:

No contract shall hereafter be made for the labor of prisoners confined in the State Prison, reformatories, or any of the houses of correction. Such prisoners shall be employed by the head officers of said institutions in such industries as shall from time to time be fixed upon. No new machinery to be propelled by other than hand or foot power shall be used in any such institution. The number of prisoners employed in a single industry at the same time in any institution shall not exceed one-twentieth of the number of persons employed in such industry in the State, except that county institutions doing business at the date of passage of this act on public account may continue such industries as they maintain, but can not employ more than 250 persons in any one industry at the same time. The goods to be manufactured in said institutions shall be, as far as may be, such articles as are in use in the several State and county institutions and as are necessary to their maintenance.

Chapter 22 of the acts of 1888, approved February 9, 1888, provides that the words "contract for the labor of prisoners," used in chapter 447 of the acts of 1887, shall not be construed as applying to a contract for the manufacture of articles by the piece, under what is known as the "piece-price system" with persons who furnish the materials used in such manufacture.

Section 2 of chapter 403 of the acts of 1888, as amended by chapter 371, acts of 1891, provides that the number of prisoners employed in any industry in the State Prison, Reformatory, Reformatory Prison for Women, or in any house of correction, shall not exceed one-twentieth of the number of persons employed in such industry in the State, unless a larger number is needed to produce articles to be supplied to State and county institutions. Fifty prisoners may be employed in the manufacture of brushes at the House of Correction at Cambridge, upon the public-account system.

Chapter 209 of the acts of 1891, approved April 17, 1891, provides that prisoners in any State institution shall not be employed outside the precincts of the same in any mechanical or skilled labor for private parties.

Chapter 460 of the acts of 1894, approved June 9, 1894, provides that no new contract for the employment of prisoners in the manufacture of reed or rattan goods shall be made until the number so employed is reduced to 75, and that thereafter no contract for the employment of more than 75 in the manufacture of such goods shall be approved.

MINNESOTA.—Section 3598 of the statutes of 1894, originally part of chapter 208 of the acts of 1887, as amended by chapter 112 of the acts of 1891, prohibits the contract system of convict labor in the State Reformatory, and provides that the board of managers shall retain control of the labor of the convicts. It also provides that during any year the board shall not employ or engage, on the average, to exceed 33 per cent of the prisoners in quarrying, manufacturing, and cutting of granite for sale.

In chapter 154 of the acts of 1895, approved April 12, 1895, the following provisions were made: The prisoners in the State Prison and State Reformatory shall be taught some trade or handicraft. No contracts shall be made for the leasing of the labor of the prisoners in said institutions at a certain rate per diem giving the contractor control of the labor, but they shall be employed by the warden, superintendent, or other chief officer having charge thereof, in such industries as from time to time may be fixed upon, or in the manufacture of articles by the piece under the "piece-price system" by contracts with persons who furnish the materials used in such manufacture. The number of prisoners employed in a single industry at the same time in any institution shall not exceed 10 per cent of the total number of persons engaged in such industry in the State unless a greater number is necessary to produce materials or articles to be supplied to State and other municipal institutions, penal or charitable. This does not apply to the number of prisoners employed in the manufacture of binding twine at the State Prison at Stillwater.

The board of managers of these institutions shall, as far as may be, have manufactured in said prison and reformatory such articles as are in common use in the several State institutions, whether penal or otherwise, and the officers of such institutions shall purchase such of said articles as are necessary for the maintenance of the institution they may represent.

MISSISSIPPI.—Sections 223 to 226, inclusive, of the State constitution, adopted in 1890, provide that after the year 1894 no penitentiary convict shall ever be leased or hired to any person or persons or corporation, private or public or quasi public, or board; that said convicts may be employed under State supervision on public roads or other public works, or by any levee board on any public levees; that the legislature may place the penitentiary convicts on State farms, and have them worked thereon, under State supervision exclusively, in tilling the soil or manufacturing, or both; and that convicts in the county jails shall not be hired or leased to any person or corporation outside the county of their conviction after 1892.

Section 3201 of the code of 1892 provides that after the year 1894 penitentiary convicts shall not be hired or leased out, but shall be employed in the penitentiary and on a farm or farms leased for that purpose, under the sole control, discipline, and management of the officers and employees of the penitentiary; and that the board of control may work said convicts on public roads, works, and levees.

Chapter 75 of the acts of 1894 provides for the establishment of penitentiary farms, and that the board of control of the penitentiary may carry on in connection with said farms such industrial enterprises as may be deemed advisable, including the manufacture of drainage tile, brick, wagons, agricultural implements, gearing, shoes, clothing, and other articles for the convicts.

Chapter 76 of the acts of 1894, approved February 10, 1894, provides that jail convicts shall be worked either by hiring them out to the best bidder or by working them, under the directions of the board of supervisors, on public roads or works, or on a farm or farms which the board may buy or lease or work on shares, or by delivering them to the county contractor; that the sheriff may hire out the convicts with their consent, or, if they do not consent, at public outcry, at the door of the courthouse, to persons who will pay in cash the amount of their several fines, costs, and jail fees, or give bond for the payment of the same; and that if the convicts are not hired out and the board of supervisors do not work them on the public roads, works, or farms, said board may agree with a person, as convict contractor, to work them at a price to be agreed upon by the board.

MONTANA.—Section 2 of article 18 of the constitution of the State, adopted in 1889, provides that the labor of the convicts in the reformatory institutions and penitentiaries of the State shall not be let by contract.

Section 2960 of the Penal Code (Codes and Statutes, 1895, Sanders' edition), originally part of an act passed in 1895, provides that the prisoners in the State Prison may be employed within the prison in any mechanical pursuits, or either within or without the walls or inclosures of the prison on the public grounds or buildings or

otherwise, but that such employment must be under the exclusive control of the board of prison commissioners; and that neither the board nor the warden must let by contract to any person the labor of any convict in the prison.

NEBRASKA.—Section 5202 of the Compiled Statutes of 1895, originally part of chapter 66 of the acts of 1895, authorizes and empowers the board of public lands and buildings to lease the labor of convicts in the penitentiary to responsible persons, when in its judgment the best interests of the State will be subserved thereby.

NEVADA.—Chapter 91 of the acts of 1887, approved February 28, 1887, provides that all the boots and shoes required to be used by the prisoners in the State Prison shall be made in the prison shop, and that the managers of other State institutions shall be supplied with all they need for the use of those under their charge; also that the surplus product of the shop may be sold by the warden in open market, but only by wholesale in full cases and unbroken packages of not less than one dozen pairs of boots or shoes each.

NEW JERSEY.—Chapter 357 of the acts of 1895, approved March 28, 1895, provides that the convicts in the reformatory may be employed in agricultural or mechanical labor, and that the system employed shall be either the "piece-price plan" or the "public-account system," or partly one and partly the other, in the discretion of the board of managers.

NEW MEXICO.—Sections 39 and 59 of chapter 76 of the acts of 1889, passed over veto February 22, 1889, provides that the labor of the penitentiary convicts may be hired out to the best advantage, and that those who are not hired out may be employed in and about any work, labor, or improvement on the capitol building or grounds, in grading, repairing, opening, cleaning, or leveling the streets, alleys, roads, and bridges in and near the city of Santa Fe; in quarrying and hauling stone, and in securing, bettering, and protecting the banks of the Santa Fe River from overflowing or destruction, so as to prevent damage to the city of Santa Fe.

NEW YORK.—Section 29 of article III of the constitution of the State, adopted in 1894, provides that after January 1, 1897, no person sentenced to the several State prisons, penitentiaries, jails, and reformatories shall be required or allowed to work at any trade, industry, or occupation wherein or whereby his work, or the product or profit of his work, shall be farmed out, contracted, given, or sold to any person, firm, association, or corporation, and that convicts may work for, and the products of their labor may be disposed of to, the State or any political division thereof, or for or to any public institution owned or managed and controlled by the State or any political division thereof.

Chapter 586 of the acts of 1888, approved August 1, 1888, provides that no motive-power machinery for manufacturing purposes shall be placed or used in any of the penal institutions of the State, and that no convict in such institutions shall be required or allowed to work at any trade or industry where his labor, or the production or profit of his labor, is farmed out, contracted, given, or sold to any person or persons whomsoever; also, that only such articles as are commonly needed and used in public institutions of the State for clothing and other necessary supplies shall be manufactured in the penal institutions.

Chapter 382 of the acts of 1889, amending article 3 of title 2 of chapter 3 of part 4 of the Revised Statutes of 1881, and approved June 6, 1889, provides that no contract shall be made by which the labor or time of any prisoner in the State prisons shall be contracted, let, or hired to contractors at a price per day or for other period of time; that the labor of the prisoners shall be either for the purpose of production and profit or for the purpose of industrial training and instruction, or partly for one and partly for the other; that the system of productive training in the State prisons shall be either the "public-account system" or the "piece-price system," or partly one and partly the other; that none of the product of the labor of the convicts shall be sold for less than 10 per centum in excess of the cost of the materials used in the manufacture of such products; that in determining the line of productive labor to be pursued the superintendent shall select diversified lines of industry

with reference to interfering as little as possible with the same lines of industry carried on by the citizens of the State; that the number of convicts employed at one time in manufacturing one kind of goods shall not exceed 5 per centum of the number of all persons within the State employed in manufacturing the same kind of goods, except in industries in which not to exceed 50 free laborers are employed, and provided that not more than 100 convicts shall be employed in all the prisons of the State in the manufacture of stoves, iron hollow ware, and boots and shoes, and that no convict shall be employed upon any of said specified industries in any of the penitentiaries, reformatories, or houses of correction in the State; that there shall be manufactured in the State prisons such articles as are commonly needed and used in the public institutions of the State, for clothing and other necessary supplies, and that such of said articles as are not needed in the State prisons shall be furnished to the several public institutions supported in whole or in part by the State; also that the labor of the prisoners in the State Reformatory at Elmira, and in the penitentiaries and other penal institutions of the State other than the State prisons, shall be conducted on the "public-account system" or the "piece-price system."

Chapter 237 of the acts of 1894, approved April 2, 1894, prohibits the manufacture of brushes, in whole or in part, by the convicts confined in the Albany Penitentiary.

Chapter 737 of the acts of 1894, approved May 21, 1894, restricts the total number of convicts employed in the State in manufacturing brooms and brushes from broom corn to 5 per centum of the total number of persons employed within the State in manufacturing such goods.

NORTH CAROLINA.—Section 4 of chapter 283 of the acts of 1893, ratified March 6, 1893, provides for the employment of the penitentiary convicts either within the walls of said institution or on farms leased or owned by the penitentiary, and makes it the duty of the superintendent to make contracts with persons or corporations, in order to employ and support as many of the able-bodied convicts on public works as the interests of the State and the constitution will permit.

OHIO.—Section 7436-5 of the Revised Statutes, seventh edition, and originally part of an act passed in 1889, provides that the managers of the penitentiary shall employ all convicts directly for the State whenever the legislature shall provide means for machinery, materials, etc.; that said board shall have power to agree with manufacturers and others to furnish machinery, materials, etc., for the employment of the convicts, under the control of the managers and their officers; that such employment shall be on the "piece or process plan," and that bids for the product of such labor on said plan shall be advertised for; that the board may arrange with the employers of prisoners, so obtained, to pay for the labor of such number of prisoners necessary to the conduct of the general business (when they are employed in connection with larger numbers of other prisoners working by the piece or process plan), by the day or week, or otherwise, and that with this exception none of the labor of the prisoners in the penitentiary shall be let on contract by the day; that as far as practicable the board must employ all prisoners necessary in making all articles for the various State institutions not manufactured by such institutions, and said institutions shall purchase and pay to the penitentiary the market price for all such articles.

An act passed April 16, 1892, directs that the total number of prisoners and inmates employed at one time in the penitentiaries, workhouses, and reformatories of the State in the manufacture of any one kind of goods shall not exceed 5 per cent of the number of all persons in the State employed outside of said penitentiaries, etc., in manufacturing the same kind of goods, except in industries in which not more than 50 free laborers are employed.

An act passed April 21, 1893, prohibits any board or authority having the control or management of any penal, reformatory, or charitable institution, or asylum from contracting with any person, firm, or corporation for the manufacture of knit or woolen goods, or from establishing any mill or manufactory for the manufacture of such goods.

OKLAHOMA.—Section 5436 of the statutes of 1893 provides that the sheriff may employ jail convicts sentenced to hard labor within the jail, and the county shall be entitled to their earnings; also that he may employ said convicts outside of the jail or yard either for the county or for any municipality in the county in work on public streets, or highways, or otherwise.

OREGON.—Section 1 of an act approved February 23, 1895, authorizes the governor to contract and lease to any person, firm, or corporation the whole or any part of the labor of the convicts at any time confined in the penitentiary for any period or periods of time not exceeding ten years. It provides that the officers of the penitentiary shall have general charge and custody of the convicts while they are engaged in such labor, and that the labor must be performed within the penitentiary building or within the yard or inclosure thereof.

SOUTH CAROLINA.—Sections 662 and 663 of the Civil Statute Laws, originally part of chapter 21 of the acts of 1893, section 554 of the Criminal Statute Laws, originally part of chapter 481 of the acts of 1893, section 33 of article 5, and section 6 of article 12 of the constitution of 1895 provide for the labor of jail convicts upon the public works, roads, highways, and bridges, under control of the county and municipal authorities.

Section 578 of the Criminal Statute Laws, originally part of chapter 20 of the acts of 1889, provides that no hiring or leasing of convicts in phosphate mining shall be made by the board of directors of the penitentiary.

Section 9 of article 12 of the constitution of 1895 directs that in case penitentiary convicts are hired or farmed out, they shall be under the supervision and control of officers of the State.

SOUTH DAKOTA.—Chapter 11 of the acts of 1890, approved March 8, 1890, provides for the working of the undeveloped stone quarries belonging to the State, and situated upon the penitentiary grounds at Sioux Falls, by the labor of the penitentiary convicts.

Chapter 131 of the acts of 1893, approved March 6, 1893, provides for the establishment of a plant in the State Penitentiary for the manufacture of binding twine from hemp or flax fiber by the use of convict labor, and directs that in the manufacture of the twine preference shall be given to the fiber grown in the State.

TENNESSEE.—Chapter 204 of the acts of 1889, approved April 4, 1889, provides for the leasing of the penitentiary buildings, quarry, grounds, fixtures, etc., and the labor of the convicts for the term of six years from January 1, 1890.

Chapter 78 of the acts of 1893, approved April 4, 1893, provides that, for the purpose of removing, as far as possible, convict labor from competition with free labor and to utilize, under the exclusive control and management of the State and for and on the State's account, the labor of the convicts, a new penitentiary shall be erected, with such buildings and workshops within its outer walls as may be deemed necessary to utilize the labor of the convicts in diversified industries; that in connection with said penitentiary there shall be a farm, not exceeding 1,500 acres of land, and that coal lands shall be purchased of not more than 10,000 acres for the purpose of opening and operating a coal mine or mines to be worked by convict labor. Said chapter also provides that "from and after the expiration of the lease now in force between the State and the lessees of the hire and labor of the convicts of the State," the contract lease system shall be forever abolished.

TEXAS.—Chapter 82 of the acts of 1891, approved April 15, 1891, provides that the system of labor in the State penitentiaries shall be either the State account system or the contract system, or partly the one and partly the other, but no contract shall be let for any of such convict labor if equally remunerative employment can be furnished by the State and worked on State account, and that no contract shall be made by which the control of the convicts shall pass from the State or its officers. It also provides that all convicts shall be placed within the walls of the penitentiaries or on State farms and worked on State account as soon and speedily as possible.

UTAH.—Section 3 of article 13 of the State constitution, adopted in 1895, provides that the legislature shall prohibit the contracting of convict labor and the labor of convicts outside prison grounds, except on public works, under the direct control of the State.

WASHINGTON.—Section 29 of article 2 of the constitution of the State, adopted in 1889, directs that after January 1, 1890, the labor of convicts shall not be let out by contract to any person, copartnership, company, or corporation, and that the legislature shall provide for the working of convicts for the benefit of the State.

Section 1158 of the statutes and codes of 1891, originally part of an act approved March 9, 1891, provides that all convicts may be employed by the authority of the board of directors of the penitentiary in the performance of work for the State, or the manufacture of any article or articles for the State, or the manufacture of which is sanctioned by law.

It also provides that at the State Penitentiary no articles shall be manufactured for sale, except jute fabrics and brick.

WEST VIRGINIA.—Chapter 46 of the acts of 1893, approved February 24, 1893, provides that the directors of the penitentiary shall be required to let and hire the labor of the convicts, upon such branches of business and for the manufacture of such articles, as in their judgment will best accomplish the ends and subserve the interests of the State; that all convicts not employed on contracts shall be employed in the performance of work for the State or temporarily hired; that a portion of the convicts may be employed in the manufacture and repair of articles used by the State in carrying on the penitentiary or articles used by any of the other State institutions; that any convicts not employed under contract may be employed or let to contract on the piece-price system or employed in manufacturing for the State such articles as may be selected by the board of directors of the penitentiary, and that convicts may be furnished to counties to work on public roads.

WISCONSIN.—Section 567d of the Annotated Statutes of 1889, originally chapter 437 of the acts of 1887, provides that the State board of supervision of charitable, reformatory, and penal institutions shall, whenever in the opinion of such board it is best for the interest of the State, establish in the State prison the business of manufacturing.

WYOMING.—Chapter 37 of the acts of 1890-91, approved January 8, 1891, provides that it shall be the duty of the board of charities and reform, either by direct expenditure or contract, to provide for the care, maintenance, and employment of all inmates of the penitentiary, reform school, or any penal or reformatory institutions in the State, but that no convict shall be used or contracted to be used in any coal mine or occupation when the products of his labor may be in competition with that of any citizen of the State. It also provides that when the cost of maintaining said convicts can be reduced to the State by their employment in some occupation, not unreasonably laborious or unhealthy, or when they can be employed to complete or repair the place or surroundings of the place in which they are confined, they shall be so employed.

UNITED STATES.—Chapter 213 of the acts of 1886-87 (second session, Forty-ninth Congress), approved February 23, 1887, prohibits any officer, servant, or agent of the United States Government from hiring or contracting out the labor, or from permitting any warden, agent, or official of any State prison, penitentiary, jail, or house of correction from hiring or contracting out the labor of any United States criminals confined in said institutions.

Chapter 529 of the acts of 1890-91 (second session, Fifty-first Congress), approved March 3, 1891, provides for the erection of three United States prisons in different sections of the country, and also provides that the convicts therein be employed exclusively in the manufacture of such supplies for the Government as can be manufactured without the use of machinery, and that they be not worked outside the prison inclosure.

INDUSTRIAL COMMUNITIES. (a)

BY W. F. WILLOUGHBY.

CHAPTER IV.

IRON AND STEEL WORKS OF FRIEDRICH KRUPP, ESSEN, GERMANY.

There is no industrial center whose development, in relation to the condition of labor, can be studied with greater profit than that of Essen, Germany, the seat of the great iron and steel works of Friedrich Krupp.

The business of Krupp was founded in 1810, before the age of steel had fairly begun, and in its career is presented a type of the development of modern industry during the nineteenth century. From a beginning of a small shop, employing scarcely a dozen workingmen, it has increased, at first slowly and then by leaps and bounds, to its present huge proportions—the largest single manufacturing establishment in the world.

The study of such an example of industrial evolution would of itself possess great interest, but accompanying this growth has been the creation of social institutions for the benefit of the employees of the works on a scale and in a variety existing to the same extent nowhere else—institutions that have had a profound influence in shaping public thought, both in Germany and elsewhere, concerning the best means of improving the condition of labor in strictly manufacturing districts. It is the existence of these institutions in connection with the industrial prosperity of Krupp's works that makes Essen a center that can be studied historically and analytically with especial profit. The village of Essen was in existence previous to the founding of the Krupp works. After a slow development during at least a thousand years, as far as records are in existence, Essen at the beginning of the present century was a small agricultural village comprising not over 3,000 inhabitants. The cultivation of the soil was almost the only industry. Though the mineral resources of the surrounding country were known, coal and iron were mined only in sufficient quantities to satisfy local household needs. This rural character changed suddenly with the rapid growth in the use of steam power. Mines were opened in rapid succession, and an influx of labor set in that has been likened to the California gold fever of 1849.

The history of the great iron and steel works of Krupp is but a repetition of that of the district in which they are situated. Founded in 1810, for nearly forty years the establishment progressed in the most

a See footnote to the beginning of this series of articles in Bulletin No. 3.

leisurely manner. In 1848, after an existence of thirty-eight years, it employed but 72 workingmen all told. From that date, however, to the present time its development has been without a parallel in industrial annals. The following table, giving the population of Essen from year to year and the total number of employees of the establishment of Krupp in Essen, shows the relation between the city and Krupp's works:

POPULATION OF ESSEN AND EMPLOYEES OF THE KRUPP IRON AND STEEL WORKS LIVING IN ESSEN, 1803 TO 1894.

Year.	Population of Essen.	Employees of Krupp firm in Essen.	Year.	Population of Essen.	Employees of Krupp firm in Essen.	Year.	Population of Essen.	Employees of Krupp firm in Essen.
1803	3,480	.....	1856	.....	970	1876	52,280	8,998
1813	4,000	.....	1857	.....	992	1877	53,510	8,586
1820	4,636	.....	1858	17,165	1,047	1878	54,721	9,414
1830	5,457	.....	1859	.....	1,391	1879	53,670	7,964
1832	.....	10	1860	.....	1,764	1880	56,957	8,806
1833	.....	9	1861	20,766	2,082	1881	59,169	10,598
1840	6,325	.....	1862	.....	2,512	1882	60,707	11,011
1843	7,119	99	1863	.....	4,185	1883	62,034	10,491
1844	.....	107	1864	31,327	6,693	1884	63,343	10,213
1845	.....	122	1865	.....	8,187	1885	65,074	10,656
1846	7,841	120	1866	.....	6,350	1886	65,143	11,723
1847	.....	93	1867	40,695	6,869	1887	67,693	12,674
1848	.....	72	1868	.....	6,217	1888	70,395	13,198
1849	8,734	107	1869	.....	6,318	1889	73,134	14,223
1850	.....	237	1870	.....	7,084	1890	78,723	15,519
1851	.....	192	1871	51,840	8,810	1891	.....	16,161
1852	10,475	340	1872	.....	10,394	1892	.....	16,865
1853	.....	352	1873	.....	11,671	1893	.....	17,100
1854	.....	360	1874	.....	11,543	1894	.....	16,706
1855	12,891	693	1875	55,045	9,743			

It should be understood that the figures just given for the number of employees of Krupp by no means include the total number. A constantly increasing number of employees have found homes just outside of the city limits. This is especially true of the period since 1873–74, when the largest group of workingmen's houses was erected. In the prosecution of its business the firm has found it advisable to acquire and manage extensive works outside of Essen. It now owns, in addition to its works at Essen, several iron works elsewhere, three coal mines—which, however, do not supply all the coal required—various iron mines in Germany and Spain, etc. The total number of employees in 1888 was 20,960, of whom 13,198 were in Essen. In 1891 the total number had increased to over 24,000, of whom 16,161 belonged to Essen, and in 1892 to over 25,000, of whom 16,865 were in Essen.

These figures stand for the actual number of employees only. The firm employs no women. The total number of employees and their families reached in 1888 the large number of 73,769, and in 1892, 85,591, all dependent upon this single manufacturing concern. It is unnecessary to more than mention these figures. The establishment of Krupp constitutes a state in itself.

Naturally such a rapid increase in population in a district unprepared to receive it introduced a number of evils. The greatest of these was that of insufficient housing. The price of land and the rent of houses went up enormously. The following figures, giving the total

number of houses and the average number of inmates per house in Essen at different periods, show how largely the increase in the number of houses failed to keep pace with the increase in the population:

NUMBER OF HOUSES AND PERSONS PER HOUSE AT ESSEN, 1820 TO 1890.

Year.	Houses.	Persons per house.	Year.	Houses.	Persons per house.	Year.	Houses.	Persons per house.
1820.....	.....	6.39	1852.....	1,024	10.23	1871.....	3,322	15.61
1830.....	.....	6.80	1855.....	1,105	11.67	1875.....	.....	12.75
1840.....	840	7.53	1858.....	1,319	13.01	1880.....	4,214	13.52
1843.....	872	8.16	1861.....	1,636	12.69	1885.....	4,298	15.14
1846.....	923	8.50	1864.....	2,045	15.32	1890.....	4,853	16.22
1849.....	941	9.28	1867.....	2,970	13.70			

In the distinctively workingmen's quarter the density of population was even greater. In 1864 in two streets of this quarter there were 1,443 persons living in 77 houses, or an average of 18.74 persons per house, and in another street 2,962 persons living in 124 houses, or an average of 23.89 per house.

A natural result of these conditions was a great rise in rents. According to official investigations the annual rent of a two-room house in 1855 was from 24 to 30 thalers ($17.14 to $21.42), and gradually rose until it was from 36 to 50 thalers ($25.70 to $35.70). The crowding also gave rise to insanitary conditions, so that, in the first of the two streets mentioned as examples of overcrowding, the death rate was 4.24 per cent of the population and in the second street 4.59 per cent, while the average for all Essen was but 3.41. The cholera epidemic of 1866 was particularly fatal in these quarters, many squares being almost depopulated.

The second result of this increase in population was the great rise in the prices of all commodities consumed by workingmen. At the same time the workingmen became thoroughly demoralized through various trade practices on the part of the merchants. Trade was solicited through the granting of prizes and portions of whisky with purchases, and the workingmen were encouraged by the merchants to run in debt in order that they might be more securely held in their power. In a word, Essen during this period presented all the evils found in one of our new mining or other rapidly growing industrial communities.

These evils the firm of Krupp sought to remove through its extensive building operations and the creation of the vast system of Consum-Anstalten or cooperative distributive stores. To these two institutions, corresponding to the two main classes of material wants of the laboring population, was joined a whole system of institutions, the object of which was to provide assistance to the workingmen in times of special need. These institutions took the form of separate funds for the insurance of the men against sickness and accident, of pension funds for old employees, of the encouragement and provision of facilities for life insurance, of savings institutions, etc. Such a community, if it was to advance in prosperity and welfare, needed scholastic institutions. Primary and secondary schools for general education were provided.

but special effort was made to provide instruction in practical matters in the way of industrial schools for boys and housekeeping and cooking schools for girls.

Without attempting to state all the forms of activity adopted by the firm, the workingmen's institutions organized by it can be grouped into the following main classes:

1. The housing of employees.
2. Relief and pension funds.
3. Workingmen's life insurance association.
4. Cooperative distributive stores.
5. Funds for the benefit of workingmen other than the regular relief and pension funds.
6. Schools.
7. Health service.
8. Other institutions.

THE HOUSING OF EMPLOYEES.

The building operations of the Krupp firm for the housing of its employees have been conducted on a vast scale. As has been shown, the conditions at Essen were such as to render such action imperative. These building operations have taken several forms to meet the varying needs of the different classes of the firm's employees. They may be grouped under the following heads:

1. Labor colonies or distinct communities of workingmen's dwellings.
2. Maintenance of a building fund to aid employees to build their own houses.
3. Ménage or boarding house for unmarried employees.
4. Workingmen's Cooperative Boarding House for small groups of single workingmen.

GROUPS OF WORKINGMEN'S HOUSES.

The report of this Department on the Housing of the Working People gives a brief account of the technical details of several of the better types of houses erected by the Krupp firm at Essen. It is the building up of the whole community and the policy pursued regarding the provision of workingmen's houses that is the feature of interest for the present report.

The first efforts of the firm date from the year 1861, when the erection of ten houses for boss workmen and foremen was commenced. Since then the efforts of the firm have never ceased, and every few years a new group of houses has been erected, though even then it has been difficult to keep pace with the rapid increase in the number of employees of the firm.

The selection of a building system was limited from the beginning by existing conditions. The firm preferred the cottage system, where each house is isolated and surrounded by a garden. This system, however, was utterly impracticable at Essen. In fact, there was not enough

land to be had in the vicinity of the works to accommodate the 2,358 family tenements built during the years 1871 to 1873, if erected on that plan. But even if the land could have been acquired, the prices were such as to have made the dwellings too expensive for workingmen. The distance that many of the men would have been compelled to live from their work would have also been a great inconvenience, and would have prevented them from taking their midday meal at home.

Another objection would have been the lack of water facilities in the vicinity of Essen, as, owing to the mining operations, all well water had been drawn off. A water service by means of water mains to the widely extended cottage district would necessarily have increased the rents considerably. For these reasons it was necessary to adopt a plan whereby the dwellings could be somewhat more closely concentrated. In every case, however, the effort has been made to provide for the dwellings a healthy location, free access to light and air, and an abundant supply of good water.

Though the majority of houses contain a number of tenements, they are completely detached from one another; there are numerous streets and open spaces; the Krupp waterworks supply ample drinking water, and the streets are well lighted by the Krupp gas works. Though the tenements in a house have a common outside entrance, inside they are completely isolated from each other.

The houses erected at different periods differ greatly. The later built houses are much superior, and a remarkable opportunity is given for the study of the evolution of the workingman's home.

In 1892 Mr. Gussman, an official of the Krupp firm, was invited to deliver an address before the Centralstelle für Wohlfahrts-Einrichtungen, in Berlin, concerning the housing operations of the Krupp firm. In this address is given, in the most direct and chronological order, an account of the erection of workingmen's houses at Essen. The following account is largely a reproduction of this address, supplemented by other information furnished by the firm (*a*):

The first tenement houses for working people were constructed in 1861–62. Two rows of houses, one with 6 tenements and the other with 4, were built for the foremen of the factory. Each tenement contains 3 rooms on the first story, 3 in the attic, and cellar space. The outer walls are of heavy stone and plaster work, and the inner partition walls of a heavy wooden framework filled in with broken stone and plastered over.

The first workingmen's colony, known as Alt-Westend, was built during the three summer months of 1863. It consists of one row of houses two stories high, containing 16 four-room tenements, and eight rows containing tenements of three or four rooms each, and so arranged that the four-room tenements can be divided into two-room tenements.

a Free use has been made of the translation of a part of this address, as given by Dr. Lindsay in the Annals of the American Academy of Political and Social Science, November, 1892.

The outer walls of the buildings are of plastered stonework in the first story, surmounted by plastered wood framework. Each tenement has a cellar. The houses are very plain, and, as Mr. Krupp expresses it, "were intended for poor families who must save, but who desire a healthful dwelling, and not for those to whom a few more thalers a year make no difference, when it means that they could live more comfortably."

During the winter of 1871–72 a second colony, called Neu-Westend was completed. This colony consists of 10 double houses three stories high, each containing 2 two-room tenements on each floor—that is, 6 tenements to each house and 60 in all; also 8 double houses three stories high, with 2 three-room tenements per floor, or 6 tenements per house. This makes a total of 48 tenements of this kind and a grand total of 108 two and three room tenements for the colony. The houses in this colony are built of brick.

Another colony, known as Nordhof, was completed in the fall of 1871. This consists of 36 tenements of three and four rooms each, and 126 tenements of two rooms each, the latter built on the so-called "Baracken" system—that is, in solid rows. The latter houses are plain wood structures, two stories high. Each tenement has a separate entrance from the street. All sanitary arrangements, closets, etc., are outside of the house. The other 36 tenements have three and four rooms each and are built of brick. The houses are three stories high.

The next colony, called Baumhof (Dreilinden), was built in 1871 and enlarged in 1890. These houses are built in a more rural style, each having a garden, and some having stables. Eight houses have 4 four-room tenements each, 23 have 4 three-room tenements each, 6 have 3 four-room tenements each, and 4 have 3 five-room tenements each, making a total of 41 houses containing 154 tenements. The population in 1892 was 910 persons.

During the years 1872 and 1873 the Schederhof colony was built. This colony consists of 2 houses, each containing 6 four-room tenements; 44 houses, each containing 6 three-room tenements, and 36 houses, each containing 6 two-room tenements, or a total of 82 houses containing 492 tenements. Each house is three stories high and has a cellar and attic.

In addition to the above there are 70 houses containing 4 two-room tenements each, or a total of 280 tenements. These houses are built in solid rows. The population of this colony was 4,002 persons in 1892.

The largest of all the colonies is known as Cronenberg. It was built in the years 1872–1874, but has since then been enlarged from time to time. The colony is situated within 100 steps from the west boundary of the works. It covers over 50 acres of land, and, according to the census of 1892, had a population of 8,001 persons.

The colony consists of 226 three-story houses built with walls partly of rough brick and partly of rough stone. Some are in rows and some in pairs. They are built on eight streets running the length of the

colony and ten cross streets, ranging in width between curbs from 8½ to 12½ meters (27.9 to 41 feet) and with sidewalks 2½ meters (8 feet) wide. In 1892 there were in all 1,437 tenements. Of these 720 have two rooms each, 600 have three rooms each, 104 have four rooms each, and 13 have five and six living rooms. Each house has a garden, a cellar, and a drying space.

In this colony are located dwellings for several officials and school teachers connected with the works. A parsonage, two school buildings, a Protestant church, several branches of the cooperative store, an apothecary shop, a post-office, a market place over three-fourths of an acre in size, a restaurant with games, bowling alley, etc., and a library with a large hall for workingmen's meetings have been established by the firm within the limits of Cronenberg.

In 1892 plans were prepared for another colony, larger than the preceding, to be known as Holsterhausen. According to the plans this colony consists of 280 tenement houses, 180 of which are built in pairs and 100 completely detached. Each tenement house has a large garden space at the side and rear. Near the center are a large market place and a public park. The 90 double houses accommodate four families each or two families per house, and the 100 detached houses contain one tenement each. The tenements in the former contain three rooms and an attic each. The detached houses, of which there are two types, contain five rooms and an attic each. The colony is planned to accommodate 460 families.

The annual rents of workingmen's tenements range (1892) as follows:

Two-room tenements in rows (*Baracken*)	$14.28 to $21.42
Other two-room tenements, with cellar	21.42 to 25.70
Three-room tenements, with cellar	28.56 to 38.56
Four-room tenements, with cellar	42.84 to 47.60
Five-room and larger tenements, with cellar	49.98 to 78.54

The following table shows the financial status of the firm's housing operations, July 1, 1891:

CAPITAL INVESTED AND ANNUAL RECEIPTS AND EXPENDITURES OF THE KRUPP IRON AND STEEL WORKS FOR HOUSING OF WORKING PEOPLE, JULY 1, 1891.

Items.	Essen.	Outside of Essen.	Total.
Tenements	*a* 3,659	*b* 523	*c* 4,182
Capital invested:			
Buildings	$2,628,103.34	$366,924.60	$2,995,027.94
Ground	288,842.51	47,751.13	336,593.64
Total	2,916,945.85	414,675.73	3,331,621.58
Total receipts from rents	115,352.65	15,956.71	131,309.36
Expenses:			
Repairs	26,817.36	2,663.46	29,480.82
Lighting, water, roads, etc	16,100.70	719.95	16,820.65
Taxes and insurance	11,424.00	1,881.15	13,305.15
Total	54,342.06	5,264.56	59,606.62
Net receipts	61,010.59	10,692.15	71,702.74
Per cent of net receipts of capital	2.09	2.58	2.15

a Not including 43 rent free. *b* Not including 131 rent free. *c* Not including 174 rent free.

This shows a net income of 2.09 per cent on capital invested in housing operations at Essen, and 2.58 per cent on capital invested elsewhere, or a net income of 2.15 per cent on the total capital invested in such property.

In conclusion, it may be proper to present the following figures to show the relation between the total number of persons depending for support upon the Krupp Company and those housed by the company. In March, 1892, the number of employees was 25,200, and the members of families depending on the same 62,700, a total of 87,900.

Of the total number of persons depending for support upon the Krupp Company, as just shown, 15,300 lived in their own homes, 25,800 rented from the firm, and 46,800 rented from private parties.

BUILDING FUND.

None of the houses built by the firm in these labor colonies have been sold. The firm, however, is very desirous that its workingmen should become, as far as possible, owners of their own houses. To encourage this Mr. Krupp in 1889 set aside a sum of 500,000 marks ($119,000) to be employed in making loans to workingmen with which to build. This money is loaned under the following conditions:

Applicants must be married and between 25 and 50 years of age, have been at least three years in the service of the firm, and earn less than 3,000 marks ($714) per year. A payment of at least 300 marks ($71.40) must be made from the applicant's own resources. If the loan is demanded for the purchase of a house already built, the latter is appraised by experts and the loan made according to their appraisement. If the loan is for the purpose of building a house, the plans must be furnished and the name of the builder, and then, if the firm approves, the loan will be paid in regular installments during the progress of the work. The services of the firm's experts and architect will be furnished gratis to the borrower. The loan is secured by a mortgage on the house and ground. Three per cent interest is charged. The capital is paid off in monthly or fortnightly installments, but additional payments can be made to hasten the liquidation of the debt. In cases of illness payments may be temporarily suspended. The installments and interest payments together rarely exceed ordinary rent payments.

In 1891 seventy-five houses, varying in value from 1,000 to 13,000 marks ($238 to $3,094), had been erected through the medium of these loans. In that year between one-fifth and one-sixth of all the employees of the firm lived in houses owned by themselves.

BOARDING HOUSE FOR UNMARRIED EMPLOYEES.

The firm found it very desirable to make some provision for the housing of its unmarried employees. In 1856 it erected its first ménage, or single men's boarding and lodging house, a building with accommodations for 200 men. Since then these accommodations have had to be

largely increased. In 1891 the ménage was occupied by about 800 men. Since 1884 all married workingmen who are not skilled laborers, and therefore have small wages, and who are separated from their families, are obliged to become inmates of the ménage.

In the beginning the cost per day for lodging, dinner (meat four times per week), supper, washing, etc., was 58 pfennigs (13.8 cents). On January 1, 1862, the rate was increased to 66 pfennigs (15.7 cents), and in 1869 further increased to 70 pfennigs (16⅔ cents). Since the latter date, however, meat has been served at dinner daily. In 1874, owing to the increase in the prices of food products, another increase was made to 80 pfennigs (19 cents), which is the present rate charged. At present, however, meat or fish is also served in the evenings at supper three times a week.

The management of the ménage is exactly that of a military barrack. There are a number of beds in each room, meals are served at regular hours, and regulations prescribe the use to be made of the building. The club feature is introduced to a considerable extent. There is a special room for a small library, where periodicals and papers can be consulted, and there are rooms for a billiard table, a bowling alley, a restaurant, etc.

COOPERATIVE BOARDING HOUSE FOR UNMARRIED EMPLOYEES.

It is unnecessary to say that there are a good many of the higher paid and more intelligent workingmen to whom the life in a ménage such as has been described is extremely distasteful. Mr. Krupp has appreciated the desires of this class, and in 1893 he inaugurated an extremely interesting plan of erecting small compact houses specially constructed for the accommodation of 30 unmarried men. As yet only one such house has been erected as an experiment, but if successful the system will be further extended.

The idea, as exemplified in the existing house, is to provide a house that can be taken by a club of 30 men who will run it as a sort of living club house and share the payment of the expenses. The house that has been built contains three stories. On the ground floor are the dining room and kitchen. There are three reading and studying rooms, dressing rooms, a bath, lavatories, etc. On the upper floors are the living rooms for 30 men. Part of the rooms are single and part double-bedded rooms. The rooms are cheerful and contain a bed, a bureau, a wardrobe, a table, and chairs. In the writing rooms each member has a special drawer in the table provided with lock and key.

Thirty men club together and agree to take this house. The rent paid is 10 marks ($2.38) per month by those occupying single, and 8 marks ($1.90) by those occupying double-bedded rooms. A general manager is then elected by the members from among their number, who has entire charge of the building. He appoints a housekeeper, who takes care of the building, does the cooking, etc. The determination of the cost of the meals rests entirely with the members themselves.

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RELIEF AND PENSION FUNDS.

THE OLD GENERAL RELIEF AND PENSION FUND.

The system of relief and pension funds at Essen in its present form is of recent origin. This is due to the radical changes introduced in the organization of all such institutions by the series of laws enacted by the German Empire during the years 1883 to 1891 concerning the insurance of workingmen.

The existence of such funds in connection with the Krupp Works, however, dates from the year 1853, when a sick and death benefit fund (Kranken- und Sterbekasse) for the benefit of workingmen of the firm was created. Without entering into details concerning the fund, for it is now replaced by another system, it is sufficient to say that it combined in one institution the various services of a sick, accident, and old age pension fund. The following table, showing the receipts and expenditures, renders extended comment unnecessary. Thus for the years previous to the introduction of the compulsory features in

s insurance by the State, a system had been organized
not quite as liberal benefits to workingmen as those
the new series of laws.

EXPENDITURES OF THE OLD GENERAL RELIEF AND PENSION
KRUPP IRON AND STEEL WORKS, BY FIVE-YEAR PERIODS, 1856 TO

ns.	1856-1860	1861-1865	1866-1870	1871-1875	1876-1880	1881-1884	Total.
CEIPTS.							
.....	.....	$11,314.85	$35,818.39	$66,564.91	$177,662.80	$253,207.53	.....
fees.....	$1,182.22	4,367.14	3,324.37	8,222.82	2,316.76	2,485.75	$21,899.06
utions of members.	16,332.66	79,211.03	128,965.18	254,489.26	232,015.16	237,008.69	948,021.98
utions of firm	8,166.46	39,605.52	64,482.59	127,255.39	116,007.57	118,504.34	474,021.87
.....	867.75	5,563.76	6,290.56	9,457.24	6,103.68	6,306.85	34,589.84
rest.....	914.34	3,894.46	9,151.22	22,656.22	42,885.29	57,066.45	136,567.98
cellaneous receipts....	645.85	152.12	844.33	4,838.76	2,060.90	731.05	9,273.01
Total.....	28,109.28	144,108.88	248,876.64	493,484.60	579,052.16	675,310.66	1,624,373.74
EXPENDITURES.							
Hospital service	a8,490.40	a45,824.75	17,189.52	38,184.23	22,051.50	24,467.74	156,208.14
Sick benefits, cash	(b)	(b)	52,542.24	120,363.18	136,359.64	119,299.49	428,564.55
Physicians, medicines, nurses, etc.....	6,144.29	35,506.77	63,090.19	87,942.04	87,326.84	85,109.44	365,119.57
Voluntary and other irregular relief	813.49	21,776.09	35,465.24	47,640.43	44,392.88	24,568.77	174,656.90
Pensions, cash	687.49	1,895.02	4,719.85	9,057.62	23,355.34	44,508.74	84,224.06
Death benefits, cash.....	564.39	3,028.79	7,505.33	10,225.13	9,544.32	10,108.32	40,976.28
Miscellaneous expenditures.....	94.37	259.07	1,799.36	2,409.17	2,814.11	1,499.07	8,875.15
Balance.....	11,314.85	35,818.39	66,564.91	177,662.80	253,207.53	365,749.09	365,749.09
Total	28,109.28	144,108.88	248,876.64	493,484.60	579,052.16	675,310.66	1,624,373.74

a Including sick benefits. *b* Included in hospital service.

The following table shows in detail the average number of members, the number of cases of sickness, and the expenditure per member during the entire existence of the old general relief and pension fund. It should be noted that the item of expense of administration is not included.

AVERAGE MEMBERS, CASES OF SICKNESS, AND EXPENDITURE PER MEMBER OF THE OLD GENERAL RELIEF AND PENSION FUND OF THE KRUPP IRON AND STEEL WORKS, 1856 TO 1884.

[It will be noticed that the average members from 1856 to 1882 as shown in this table agree with the total employees shown for the same years on page 480, while for 1883 and 1884 the figures are different. The explanation is not known. The figures are given as published by the company.]

Year.	Average members.	Cases of sickness.	Cases of sickness per member.	Expenditure per member.	Year.	Average members.	Cases of sickness.	Cases of sickness per member.	Expenditure per member.
1856.....	970	1,750	1.80	$1.83	1871.....	8,810	20,651	2.34	$5.82
1857	992	1,871	1.89	2.62	1872	10,394	13,280	1.28	5.68
1858....	1,047	1,837	1.75	3.27	1873.....	11,671	22,874	1.96	5.19
1859.....	1,391	1,882	1.35	2.94	1874.....	11,543	22,474	1.95	5.98
1860	1,764	2,345	1.33	2.78	1875.....	9,743	19,828	2.04	7.80
1861.....	2,082	3,496	1.68	3.81	1876.....	8,998	16,664	1.86	7.17
1862.....	2,512	4,345	1.73	4.18	1877.....	8,586	15,150	1.76	7.25
1863.....	4,185	8,373	2.00	4.18	1878.....	9,414	17,886	1.90	7.02
1864.....	6,693	16,893	2.52	4.80	1879.....	7,964	14,334	1.80	8.24
1865.....	8,187	21,215	2.59	4.91	1880.....	8,806	16,851	1.91	7.65
1866.....	6,350	15,840	2.49	7.50	1881	10,598	20,774	1.96	7.28
1867.....	6,869	15,490	2.26	5.04	1882.....	11,011	21,139	1.92	7.03
1868.....	6,217	14,275	2.30	4.87	1883.....	10,402	19,629	1.89	7.32
1869.....	6,318	15,003	2.37	4.96	1884.....	10,214	18,715	1.83	[illegible]
1870.....	7,084	15,190	2.14	5.43					

They determine how much they will pay, and the general manager then makes the best use of this money that he can. The present club pays 1.25 marks (29¾ cents) per member per day. With this 35 persons, including the housekeeper and her assistants, must be fed.

Meals of the following character are furnished: In the morning a first breakfast of coffee and bread, and a second breakfast of two meat and cheese sandwiches; at noon a warm meal consisting of meat, vegetables, bread, etc.; in the afternoon sandwiches again, and in the evening a warm supper of meat, somewhat less substantial than the dinner. Beer can be had at the house for 15 pfennigs (3.6 cents) a bottle.

From the foregoing it can be seen that the cost to each member for rent, including 1 mark (23.8 cents) per month for maintenance of the furnishings of the house, averages about 10 marks ($2.38) per month, or 33⅓ pfennigs (7.9 cents) per day; the cost of board is 1.25 marks (29¾ cents) per day; the total cost for board and lodging being, therefore, about 1.58⅓ marks (37.7 cents) per day. The members are mostly skilled iron workers and turners, earning from 4 to 5 marks (95 cents to $1.19) per day.

From the standpoint of the firm, if the house is full, a yearly rent of 2,708 marks ($644.50) will be obtained. The cost of the ground and building was about 65,000 marks ($15,470). The maximum interest returns on the investment is therefore 4.17 per cent. It should be noted, however, that gas is supplied free by the firm, and the housekeeper and her daughter who assists her are able to live on a small salary, as her husband is pensioned by the firm. A visitor to this cooperative lodging house is struck with the admirable arrangement here devised, the full provision for the comfort and pleasure of the inhabitants, and at the same time the absolute freedom left to each, so that he can look upon his own room as his home. A vacancy is immediately competed for by a great many workingmen.

RELIEF AND PENSION FUNDS.

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The existence of such funds in connection with the Krupp Works, however, dates from the year 1853, when a sick and death benefit fund (Kranken- und Sterbekasse) for the benefit of workingmen of the firm was created. Without entering into details concerning the fund, for it is now replaced by another system, it is sufficient to say that it combined in one institution the various services of a sick, accident, and old-age pension fund. The following table, showing the receipts and disbursements, renders extended comment unnecessary. Thus for thirty years previous to the introduction of the compulsory features in

workingmen's insurance by the State, a system had been organized offering almost if not quite as liberal benefits to workingmen as those provided for by the new series of laws.

RECEIPTS AND EXPENDITURES OF THE OLD GENERAL RELIEF AND PENSION FUND OF THE KRUPP IRON AND STEEL WORKS, BY FIVE-YEAR PERIODS, 1856 TO 1884.

Items.	1856-1860	1861-1865	1866-1870	1871-1875	1876-1880	1881-1884	Total.
RECEIPTS.							
Balance	.....	$11,314.85	$35,818.39	$66,564.91	$177,662.80	$253,207.53	.....
Entrance fees	$1,182.22	4,367.14	3,324.37	8,222.82	2,316.76	2,485.75	$21,899.06
Contributions of members	10,332.66	79,211.03	128,965.18	254,489.26	232,015.16	237,008.69	948,021.98
Contributions of firm	8,166.46	39,605.52	64,482.59	127,255.39	116,007.57	118,504.34	474,021.87
Fines	867.75	5,563.76	6,290.56	9,457.24	6,103.68	6,306.85	34,589.84
Interest	914.34	3,894.46	9,151.22	22,656.22	42,885.29	57,066.45	136,567.98
Miscellaneous receipts	645.85	152.12	844.33	4,838.76	2,060.90	731.05	9,273.01
Total	28,109.28	144,108.88	248,876.64	493,484.60	579,052.16	675,310.66	1,624,373.74
EXPENDITURES.							
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Sick benefits, cash	(b)	(b)	52,542.24	120,303.18	136,359.64	119,299.49	428,564.55
Physicians, medicines, nurses, etc.	6,144.29	35,506.77	63,090.19	87,942.04	87,326.84	85,109.44	365,119.57
Voluntary and other irregular relief	813.49	21,776.09	35,465.24	47,640.43	44,392.88	24,568.77	174,656.90
Pensions, cash	687.49	1,895.02	4,719.85	9,057.62	23,355.34	44,508.74	84,224.06
Death benefits, cash	564.39	3,028.79	7,505.33	10,225.13	9,544.32	10,108.32	40,976.28
Miscellaneous expenditures	94.37	259.07	1,799.36	2,409.17	2,814.11	1,499.07	8,875.15
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1857	992	1,871	1.89	2.62	1872	10,394	13,280	1.28	5.68
1858	1,047	1,837	1.75	3.27	1873	11,671	22,874	1.96	5.19
1859	1,391	1,882	1.35	2.94	1874	11,543	22,474	1.95	5.98
1860	1,764	2,345	1.33	2.78	1875	9,743	19,828	2.04	7.80
1861	2,082	3,496	1.68	3.81	1876	8,998	16,064	1.86	7.17
1862	2,512	4,345	1.73	4.18	1877	8,586	15,150	1.76	7.25
1863	4,185	8,373	2.00	4.18	1878	9,414	17,880	1.90	7.02
1864	6,693	16,893	2.52	4.80	1879	7,964	14,234	1.80	8.24
1865	8,187	21,215	2.59	4.91	1880	8,806	16,851	1.91	7.65
1866	6,350	15,840	2.49	7.50	1881	10,598	20,774	1.96	7.28
1867	6,869	15,490	2.26	5.04	1882	11,011	21,139	1.92	7.03
1868	6,217	14,275	2.30	4.87	1883	10,402	19,629	1.89	7.32
1869	6,318	15,003	2.37	4.96	1884	10,214	18,715	1.83	7.74
1870	7,084	15,190	2.14	5.43					

NEW SICK FUND.

The old fund was forced to wind up its operations in accordance with the national law of June 15, 1883, which, while making the maintenance of sick and pension funds obligatory, prohibited their union in a single fund. To replace this old fund, therefore, there were organized by the Krupp firm two independent funds, a sick fund (Krankenkasse) and a pension fund (Arbeiter-Pensions-, Wittwen- und Waisenkasse).

On winding up the affairs of the old fund, a net surplus of 1,536,760.87 marks ($365,749.09) remained, as will be seen by the table. Of this sum it was determined to apportion 10,000 marks ($2,380) to the new sick fund, with the proviso that in case an extraordinary demand should be made on the sick fund, as in case of an epidemic, before the legal reserve fund could be accumulated, a further sum of 100,000 marks ($23,800) could be claimed. This, however, it never became necessary to do. The remainder of the old fund's assets was transferred to the new pension fund, for it was for the payment of these pensions that the large reserve fund had been accumulated.

Membership in the new sick fund is obligatory for all persons employed by the firm with the exception of officials receiving more than 6⅔ marks ($1.59) per day, or 166⅔ marks ($39.67) per month, or 2,000 marks ($476) per year. Provision is also made for voluntary membership.

The resources of the fund, in addition to the 10,000 marks ($2,380) received from the old fund, consist practically of contributions by members of an amount equal to 2 per cent of their average wages as far as the latter do not exceed 4 marks (95 cents) per day, and contributions by the firm of a sum equal to one-half of that amount. Other receipts are unimportant, and consist of interest on funds invested, entrance fees, fines, and other miscellaneous items. If the state of the funds permit, the contribution of the members can be reduced, provided that their contributions to the pension fund are augmented to an equal amount. In consequence of this provision, the contributions of members were reduced in 1889 to 1.7 per cent of their average wages. Considerable latitude is also given regarding the power to raise and lower the rate of benefits granted in order to conform to the needs of the fund's budget. A reserve fund is provided for, the minimum amount of which can not be less than the average, of the last three years' expenditures.

From this fund provision is made for the granting of the following benefits:

1. Free medical attendance by a physician employed by the fund, free medicine, free medical supplies, etc. This includes hospital treatment and nursing for members who are married or members of families, if the disease is of such a nature as to require treatment outside their homes, and to all other persons unconditionally. In this case, however, the cash benefits paid to sick members are somewhat reduced.

2. Cash benefits to workingmen when sick, after the third day of their illness, equal to one-half their average wages. If they are married or widowed and have children under 15 years of age who are not working, an additional allowance of 5 per cent for each child is accorded. Such total additional allowances can, however, in no case exceed 16⅔ per cent of the wages, so that the regular and additional benefits can never exceed two-thirds of the recipient's wages. If the member has been in the employ of the firm less than five years, these benefits are paid during thirteen weeks only; but if they have been so employed five or more years, during a period of twenty-six weeks. Liberal power, however, is given to the management of the fund to continue the payments in worthy cases for a year if necessary.

3. In case of death a cash benefit equal to 20 times the amount of the decedent's average daily wages, but not to exceed 80 marks ($19.04) nor be less than 20 times the average daily wages of ordinary laborers. A death benefit equal to two-thirds of this benefit is also paid in case of the death of the wife of a member.

The sick-benefit fund employs 16 physicians, 10 of whom live in Essen and the others in neighboring towns where the firm employs labor. Two oculists are among the physicians who reside in Essen. Arrangements also exist whereby the services of specialists for throat and other diseases may be secured whenever recommended by the attending physicians. The choice of physicians is optional with the patient. The compensation of the physicians depends upon the number of members of the fund and the number treated by each, respectively. For instance, the total for all physicians is determined in a lump sum, according to the membership. This amount is then apportioned to the physicians according to the number of persons treated by each. In order to facilitate the rendering of aid in case of injury, three special attendants (Heildiener) are stationed at two bandage dispensaries (Verbandstationen) within the works. Medicines, bandages, etc., are also placed in six portable medicine and bandage chests distributed at convenient points. Three special attendants are employed for performing minor surgical operations, such as cupping, leeching, tooth extracting, etc., whenever directed by the attending physicians. They receive compensation according to a fixed schedule of rates.

All apothecaries in Essen, Altendorf, Altenessen, Borbeck, Berge-Borbeck, Rellinghausen, Werden, and Muhlheim-on-the-Ruhr participate in furnishing medicines. The sick-benefit fund enjoys a rebate of from 10 to 25 per cent on all medicines. The charges allowed for medicines are determined by a paid pharmacist in accordance with the usual rates charged for medicines, and are verified by a factory physician. The bandage material is bought at wholesale directly from the manufacturer. All bandages, as well as orthopedic instruments, artificial limbs, etc., are furnished gratis to members of the fund.

The claims for assistance are usually made by a representative of the working people who is on the board of directors. He examines the

applications, usually certified to by the physicians, and reports the result to the board. Two inspectors are engaged to visit the homes of the patients receiving aid and to keep a general supervision over the condition of the recipients. They report also to the board of directors of the sick fund any facts that may be of interest in determining the assistance to be granted.

Another feature of the sick fund is one in the interest of married members. By its provisions every member may contribute 1.25 marks (29¾ cents) quarterly to the so-called "family fund," which entitles him to the services of a physician for members of his family, if the latter are not already connected with some sick fund or are not otherwise entitled to aid in case of sickness. Since April 1, 1890, this plan has also been extended to the families of pensioned invalids. An annual appropriation, which at present amounts to 1,200 marks ($285.60), is made out of the workingmen's fund (Arbeiter-Stiftung) in aid of this service.

The administration of the fund is in the hands of a general assembly and board of directors elected by the firm and by the members of the fund. For the duties and powers of these bodies reference must be had to the constitution.

The operations of the sick-benefit fund extend far beyond those prescribed by law. They include, among other things, maintenance for as long a period as fifty-two weeks for persons over five years in the employ of the firm, and extra assistance in addition to regular sick benefits equal to 5 per cent of the wages for each child under 15 years of age and not working, the total not exceeding two-thirds of a maximum wage of 4 marks (95 cents) per day.

Notwithstanding the liberality of this fund the firm of Krupp has done a great deal in other ways for the relief of suffering resulting from sickness among its employees.

In 1879 Mr. Alfred Krupp donated a sum of 6,000 marks ($1,428) for relief in cases of sickness and distress in families, in commemoration of the golden wedding of the late Emperor William I. Later the firm of Friedrich Krupp placed at the disposal of this fund an annual sum of 3,000 marks ($714). A careful statement is kept of the disposition of these funds.

The directors of the fund have, furthermore, at their disposal the 5 per cent interest on a sum of 40,000 marks ($9,520) donated by Mr. Friedrich Alfred Krupp. This interest, namely, 2,000 marks ($476) per year, is intended for the payment of a part of the expenses borne by needy employees who have members of their families under treatment in the women's and children's division of the Krupp Hospital.

Lastly the trustees of the workingmen's fund (Arbeiter-Stiftung) have turned over to the directors of the sick fund a sum of 1,500 marks ($357) for the last half of the year 1889 and 3,000 marks ($714) for the year 1890, to be used for assisting members and their families.

The directors of the sick fund thus have the disposition of large amounts of money for assisting its members, not only in case of their

own illness but also in case of indigence in their families. The operations of the fund proper are shown in the table that follows. It is unnecessary to make any comment. The salient features may be seen at a glance. It is of interest, however, to know what is the average expenditure per member, and whether this average tends to increase or diminish during the year. The necessary calculations have been made in the following statement. The same information was given for the old fund, embracing the years 1856 to 1884. The two tables together, therefore, show the average annual cost per member of a general sick fund.

AVERAGE MEMBERS AND EXPENDITURE PER MEMBER OF THE NEW SICK FUND OF THE KRUPP IRON AND STEEL WORKS, 1885 TO 1894.

Year.	Average members.	Total expenditure.	Average expenditure per member.
1885	10,695	$55,944.89	$5.23
1886	11,784	74,173.21	6.29
1887	12,694	86,208.38	6.79
1888	13,266	81,660.59	6.16
1889	14,081	87,232.12	6.20
1890	15,572	92,350.09	5.93
1891	16,085	101,858.64	6.33
1892	16,779	109,067.62	6.50
1893	17,074	108,237.55	6.34
1894	16,705	97,370.17	5.83

RECEIPTS AND EXPENDITURES OF THE NEW SICK FUND OF THE KRUPP IRON AND STEEL WORKS, 1885 TO 1894.

Items.	1885.	1886.	1887.	1888.	1889.	1890.
RECEIPTS.						
Balance on hand at beginning	$2,380.00	$34.74	$186.93	$281.89	$4,514.26	$9,833.38
Contributions of members	52,696.02	57,284.29	61,759.61	66,469.86	64,368.31	65,568.15
Contributions of firm	26,348.01	28,642.14	30,879.81	33,234.93	31,480.03	32,768.53
Interest	511.31	1,347.08	1,904.79	3,436.72	3,351.04	3,351.04
Restitution by others for aid granted sick	629.45	1,325.41	2,436.32	1,785.82	2,864.90	3,183.06
Miscellaneous receipts	3,640.84	6.48	32.81	5.63	6.96	20.99
Total	86,205.63	88,640.14	97,200.27	105,214.85	106,585.50	114,725.15
EXPENDITURES.						
Expenses of administration	659.73	764.84	692.70	750.20	725.35	747.89
Medical attendance	8,257.10	9,074.72	10,096.27	10,259.86	10,789.07	12,084.97
Medicines	10,977.22	13,443.59	14,073.13	13,020.88	14,111.07	15,150.69
To hospitals for attendance and nursing	4,144.78	4,481.15	5,633.11	5,949.32	5,799.93	7,614.65
Sick benefits paid to members	26,343.95	38,353.83	46,547.50	37,145.65	40,956.05	41,055.79
Sick benefits paid to dependents of members	557.13	587.14	977.59	7,212.84	7,601.64	7,818.69
Death benefits	2,337.20	3,008.62	3,456.55	3,060.04	3,433.78	3,571.43
Miscellaneous relief	1,317.69	1,517.49	1,552.95	1,511.06	1,885.80	1,768.77
Miscellaneous expenditures	1,350.09	2,941.83	3,178.58	2,750.74	1,929.43	2,537.21
Contributed to reserve fund	30,226.00	14,280.00	10,710.00	19,040.00	9,520.00	14,280.00
Balance on hand at end	34.74	186.93	281.89	4,514.26	9,833.38	8,095.06
Total	86,205.63	88,640.14	97,200.27	105,214.85	106,585.50	114,725.15
Reserve fund at beginning	.....	30,226.00	44,506.00	55,216.00	74,256.00	83,776.00
Contributed to reserve fund	30,226.00	14,280.00	10,710.00	19,040.00	9,520.00	14,280.00
Reserve fund at end	30,226.00	44,506.00	55,216.00	74,256.00	83,776.00	98,056.00

RECEIPTS AND EXPENDITURES OF THE NEW SICK FUND OF THE KRUPP IRON AND STEEL WORKS, 1885 TO 1894—Concluded.

Items.	1891.	1892.	1893.	1894.	Total.
RECEIPTS.					
Balance on hand at beginning	$8,095.06	$8,041.80	$16,519.41	$2,163.06	$2,380.00
Contributions of members	69,447.67	73,233.19	66,363.95	55,943.49	633,134.54
Contributions of firm	34,704.80	36,665.80	33,148.27	27,957.19	315,829.51
Interest	2,760.80	5,583.48	2,927.40	6,297.48	31,471.14
Restitution by others for aid granted sick	3,215.11	1,892.04	2,722.38	3,400.82	23,455.31
Miscellaneous receipts	7.00	170.72	1,380.80	2,420.44	7,692.67
Total	118,230.44	125,587.03	123,062.21	98,182.48	1,013,963.17
EXPENDITURES.					
Expenses of administration	751.24	834.72	911.26	1,085.58	7,923.51
Medical attendance	12,666.40	14,280.85	18,406.29	14,905.71	120,821.24
Medicines	16,468.58	20,334.81	19,732.45	20,060.55	157,372.97
To hospitals for attendance and nursing	9,055.99	8,138.14	6,431.78	6,931.61	64,180.46
Sick benefits paid to members	45,246.62	48,759.57	51,316.20	46,412.29	422,137.45
Sick benefits paid to dependents of members	8,366.65	8,665.86	4,756.67	606.57	47,150.78
Death benefits	4,536.09	4,368.26	4,320.97	3,468.38	35,561.32
Miscellaneous relief	2,273.90	2,494.87	71.78	122.27	14,516.58
Miscellaneous expenditures	2,493.17	1,190.54	2,290.15	3,777.21	24,438.95
Contributed to reserve fund	8,330.00	.....	12,661.60	.....	119,047.60
Balance on hand at end	8,041.80	16,519.41	2,163.06	812.31	812.31
Total	118,230.44	125,587.03	123,062.21	98,182.48	1,013,963.17
Reserve fund at beginning	98,056.00	106,386.00	106,386.00	118,286.00	.....
Contributed to reserve fund	8,330.00	.....	12,661.60	.....	118,286.00
Reserve fund at end	106,386.00	106,386.00	a118,286.00	118,286.00	118,286.00

a It will be noticed that $12,661.60 is carried to the reserve fund, while the reserve fund is increased only $11,900. The explanation of this is not known; the figures are as furnished by the company.

NEW PENSION FUND.

The imperial law of June 15, 1883, regarding workingmen's insurance necessitated, as has been shown, the abolition of the old sick and pension fund and the creation in its place of two independent funds. The constitution of the new pension fund (Pensionskasse für die Gussstahlfabrik der Firma Fried. Krupp) was adopted October 22, 1884. Membership in this fund is obligatory, and applies to the same classes that are included in the sick fund.

The resources of the fund were made to consist of (1) the entire assets of the old sick and pension fund, excepting the 10,000 marks ($2,380), previously mentioned, that were turned over to the sick-benefit fund; (2) an entrance fee from each member of an amount equal to 1½ times his daily wages, where such wages do not exceed 4 marks (95 cents); (3) a contribution by each member of an amount equal originally to 1 per cent, but increased July 1, 1889, to 1.3 per cent of his annual wages at the same time that his contribution to the sick fund was reduced from 2 per cent to 1.7 per cent; (4) a contribution by the firm of an amount equal originally to one-half, but in 1891 increased to the same amount as that paid by the workingmen; (5) miscellaneous receipts, such as interest on funds invested, fines, voluntary gifts, etc. The rate

of the contributions can, within certain limits, be increased or diminished if the condition of the fund is such as to demand or warrant such a change.

From the fund thus constituted provision was made for the payment of pensions as follows:

1. To workingmen who have been in the employ of the company for twenty years continuously, or who have done specially difficult work for the firm during at least fifteen years, an annual pension equal to 40 per cent of their average wages during the preceding three years. For every additional year of service the pension is increased by an amount equal to 1½ per cent of the average wages. Wages over 4 marks (95 cents) per day are not considered in making this calculation.

2. To widows of pensioners, or those who would have been entitled to receive a pension in case of disability until their death or remarriage, 33⅓ per cent of the pension of their husbands.

3. To children of these fathers until the age of 15 years or death, 10 per cent, or in case they have no mother, 15 per cent of the pensions of their fathers. In no case, however, can the total of pensions to survivors exceed 90 per cent of the pension to which the husband or father was entitled.

4. Partial pensions are also given to those entitled to pensions, but who are capable of doing light work. The partial pension can not exceed in amount one-half of that granted to totally disabled invalids, nor can the total amount paid for all partial pensions exceed 10 per cent of that for all pensioners.

The imperial law of June 22, 1889, regarding invalidity and old-age pensions necessitated several changes in the constitution of this fund. These modifications, which are very comprehensive in character, were incorporated in an amendment to the constitution adopted July 5 and approved August 18, 1890.

The imperial law, establishing a system of old-age and invalidity pensions under the auspices of the State, provided that an employer already maintaining a fund for the granting of such pensions to his employees could reduce the amount of such private pension by the amount granted under the national system, or, indeed, do away with the private fund altogether, provided, of course, no obligations already incurred were violated. The Krupp firm had been maintaining a private fund, which granted pensions in excess of those required by the imperial law. In order that its employees might receive some additional advantages from the law, the firm amended the constitution of its fund so that the pension received from this source would be reduced by an amount equal to only one-half the pension received from the general system. The effect of this was to increase the total pension received from the national and private funds by an amount equal to one-half the pension provided for in the law, the total amount received thus being far greater than that required by law.

The maximum wage for eligibility to pensions was raised from 1,2

to 2,000 marks ($285.60 to $476) per year. A special fund is provided for all those employed who earn over 2,000 marks ($476). The amendment also provided that the widow's pension be raised from 33⅓ to 50 per cent of that received by the husband. To insure the payment of this additional expense the firm raised its contribution from one-half to an amount equal to that contributed by the members.

The significance of these changes can be seen in the following table showing the total amount of the pensions received by a workingman earning 1,200 marks ($285.60) per annum, or by his widow and children:

SCHEDULE OF PENSIONS PAID FOR INVALIDITY TO MEMBERS OF THE NEW PENSION FUND OF THE KRUPP IRON AND STEEL WORKS EARNING $285.60 PER ANNUM, AND TO THEIR WIDOWS AND CHILDREN.

[The figures in the table indicate that the child in each case receives only one-half of the pension provided by the constitution. The explanation is not known. The figures are given as furnished by the company.]

Length of service of members.	Pension paid to—				
	Members before passage of law.	Members since passage of law.	Widows.	One child.	
				Mother living.	Mother dead.
20 years	$114.24	$143.42	$57.12	$5.71	$8.57
25 years	135.66	168.86	67.83	6.78	10.17
30 years	157.08	194.30	78.54	7.85	11.78
35 years	178.50	219.75	89.25	8.93	a 12.79
40 years	199.92	245.19	99.96	10.00	14.99

a Calculated on the same basis as the other figures in the column this should be $13.39. The figures are given, however, as published by the company.

The following tables give all the desirable information concerning the operations of the fund since its creation:

RECEIPTS AND EXPENDITURES OF THE NEW PENSION FUND OF THE KRUPP IRON AND STEEL WORKS, 1885 TO 1894.

Items.	1885.	1886.	1887.	1888.	1889.	1890.
RECEIPTS.						
Balance on hand at beginning	$363,536.57	$20,844.38	$21,820.01	$8,499.73	$13,498.49	$14,006.58
Contributions of members	26,317.02	28,585.42	30,833.71	32,260.29	40,002.06	50,247.15
Contributions of firm	13,158.52	14,292.73	15,416.87	16,130.16	20,001.04	25,123.59
Entrance fees	2,175.99	2,830.58	3,273.39	2,661.70	5,159.69	5,050.19
Fines	1,465.97	1,762.53	1,763.77	2,039.48	2,231.33	2,222.06
Interest	14,619.88	16,137.37	17,566.73	18,851.70	20,023.36	21,704.69
Miscellaneous	.....	.....	298.89	.....	59.76	427.90
Total	421,273.95	84,453.01	90,973.37	80,443.06	100,975.73	118,782.16
EXPENDITURES.						
Pensions	19,013.26	24,782.51	31,743.59	41,244.64	48,852.23	57,312.96
Premiums, expenses incident to purchase of securities, etc.	12,516.31	2,150.49	3,130.05	1,886.46	2,365.10	1,953.93
Miscellaneous	.....	.....	.....	13.47	51.82	33.33
Invested in securities	368,900.00	35,700.00	47,600.00	23,800.00	35,700.00	35,700.00
Balance	20,844.38	21,820.01	8,499.73	13,498.49	14,006.58	23,781.94
Total	421,273.95	84,453.01	90,973.37	80,443.06	100,975.73	118,782.16
Reserve invested in 4 per cent securities—						
On hand at beginning	.....	368,900.00	404,600.00	452,200.00	476,000.00	511,700.00
Invested	368,900.00	35,700.00	47,600.00	23,800.00	35,700.00	35,700.00
On hand at end	368,900.00	404,600.00	452,200.00	476,000.00	511,700.00	547,400.00

RECEIPTS AND EXPENDITURES OF THE NEW PENSION FUND OF THE KRUPP IRON AND STEEL WORKS, 1885 TO 1894—Concluded.

Items.	1891.	1892.	1893.	1894.	Total.
RECEIPTS.					
Balance on hand at beginning	$23,781.94	$45,574.52	$29,205.29	$55,299.05	$363,536.57
Contributions of members	59,359.80	63,149.20	64,037.61	62,883.31	457,675.57
Contributions of firm	59 359.80	63,149.20	64,037.61	62,883.31	353,552.83
Entrance fees	4,645.29	3,949.09	3,534.97	2,051.31	35,332.20
Fines	2,399.35	2,363.56	2,425.08	2,604.37	21,277.50
Interest	23,869.73	27,388.02	30,481.41	33,066.30	223,709.19
Miscellaneous	397.15	235.95	457.99	245.66	2,123.30
Total	173,813.06	205,809.54	194,179.96	219,033.31	1,457,207.16
EXPENDITURES.					
Pensions	65,260.04	74,576.84	88,168.22	116,237.31	567,191.60
Premiums, expenses incident to purchase of securities, etc	3,440.54	6,784.12	3,067.66	1,858.16	39,152.82
Miscellaneous	37.96	43.29	45.03	69.59	294.49
Invested in securities	59,500.00	95,200.00	47,600.00	23,800.00	773,500.00
Balance	45,574.52	29,205.29	55,299.05	77,068.25	77,068.25
Total	173,813.06	205,809.54	194,179.96	219,033.31	1,457,207.16
Reserve invested in 4 per cent securities—					
On hand at beginning	547,400.00	606,900.00	702,100.00	749,700.00	.....
Invested	59,500.00	95,200.00	47,600.00	23,800.00	773,500.00
On hand at end	606,900.00	702,100.00	749,700.00	773,500.00	773,500.00

PENSIONERS AND AVERAGE PENSIONS UNDER THE NEW PENSION FUND OF THE KRUPP IRON AND STEEL WORKS, 1885 TO 1894.

Year.	Men.		Widows.		Orphans.		Partial pensions.		Total pensions.	
	Number.	Average.	Number.	Average.	Number.	Average.	Number.	Average.	Number.	Average.
1885	110	$99.64	126	$63.57	4	$11.30	.....	.....	240	$79.22
1886	155	95.87	156	63.06	11	7.81	.....	.....	322	76.96
1887	204	92.51	211	60.17	12	11.55	5	$7.24	432	73.48
1888	247	105.54	247	62.14	18	11.37	6	19.68	518	79.62
1889	281	106.45	296	62.15	26	11.51	10	24.41	613	79.69
1890	312	109.89	357	62.09	35	11.47	15	30.72	719	79.71
1891	344	109.75	411	64.36	43	11.24	17	33.52	815	80.07
1892	395	104.04	488	65.70	65	13.18	17	32.94	965	77.28
1893	478	104.19	538	68.04	86	11.52	28	27.46	1,130	78.02
1894	658	110.97	587	69.31	98	13.17	52	23.98	1,395	83.32

AVERAGE MEMBERS AND EXPENDITURES PER MEMBER OF THE NEW PENSION FUND OF THE KRUPP IRON AND STEEL WORKS, 1885 to 1894.

[It will be noticed that the figures in this table showing average members do not agree with the figures on page 480. The explanation is not known. The figures are given as furnished by the company.]

Year.	Average members.	Expenditures.					
		Pension.	Pension per member.	Other expenses.	Other expenses per member.	Total.	Total per member.
1885	10,673	$19,013.26	$1.78	$12,516.31	$1.17	$31,529.57	$2.95
1886	11,707	24,782.51	2.12	2,150.49	.18	26,933.00	2.30
1887	12,642	31,743.59	2.51	3,130.05	.25	34,873.64	2.76
1888	13,168	41,244.64	3.13	1,899.93	.15	43,144.57	3.28
1889	14,187	48,852.23	3.44	2,416.91	.17	51,269.14	3.61
1890	15,482	57,312.96	3.70	1,987.25	.13	59,300.21	3.83
1891	15,980	65,260.04	4.08	3,478.50	.22	68,738.54	4.30
1892	16,741	74,576.84	4.45	6,827.41	.41	81,404.25	4.86
1893	16,936	88,168.22	5.21	3,112.70	.18	91,280.92	5.39
1894	16,509	116,237.31	7.04	1,927.76	.12	118,165.07	7.16

From the experience thus far it is impossible to judge how long, on an average, an invalid of the steel works remains on the pension rolls. Cases have occurred in which quite considerable demands have been made upon the fund. Thus, for instance, three invalids died recently who lived $18\frac{3}{12}$, $19\frac{1}{12}$, and $13\frac{2}{12}$ years after having been placed on the pension list, and these invalids drew altogether 11,497.50, 14,937.50, and 6,912.50 marks ($2,736.41, $3,555.13, and $1,645.18), respectively, in pension allowances.

FUNDS FOR THE INSURANCE OF OFFICIALS AND HIGHER PAID EMPLOYEES.

The pension funds that have been considered are for the laboring classes, strictly speaking. Their provisions apply only to those employees who are earning less than 2,000 marks ($476) per annum. For those of its employees who are earning over that amount the firm has organized a parallel series of funds. The first of these, that for the granting of pensions to this class of employees, their widows, and orphans, was created July 1, 1890. As a nucleus for the fund Mr. Friedrich Alfred Krupp donated the sum of 500,000 marks ($119,000). The regular sources of income consist of entrance fees equal to one-twelfth of the members' yearly earnings, dues equal to 3 per cent of the earnings, and a contribution by the firm equal to the amount paid by the members as dues. Membership is obligatory.

Members of the fund who have been at least five years in the employ of the firm receive in case of disability a pension of fifteen-sixtieths of their salary after five years' service, and one-sixtieth for each additional year of service. The pension can not in any case, however, exceed forty-five sixtieths of the salary received at the time of retirement. In case of death the widow of the member receives one-half of the husband's pension and each child under 18 years of age gets one-twentieth of the pension. The total paid to the heirs can not, however, exceed three-fourths of the entire pension. Any member who has been in the employ of the firm thirty-five years, or who has completed his sixty-fifth year of age, may apply for a pension. In all other cases, except when specially directed by the firm of Friedrich Krupp, a physician's certificate of disability must accompany the request for a pension.

The fund is administered by a board of directors. This consists of the president, treasurer, and secretary, who are appointed by the firm, and three directors elected by the members of the fund. The auditing committee consists of three members elected every three years by the members of the fund.

As the particular funds of the Krupp Works, as well as the provisions of the general law regarding the insurance of workmen against accident, do not apply to the insurance against accidents of employees earning over 2,000 marks ($476) per annum, the firm has created a fund for the latter's insurance. The expense of the fund is borne entirely by

the firm. The schedule of pensions provides for the following indemnities:

In the case of death by accident the survivors receive the full wages which the member would have drawn at the time of the accident for the month when he died and the two months following. As soon as the payment of the full wages ceases, an annuity of 20 per cent of the wages is paid to the widow until her death or remarriage, and 15 per cent to each child until the attainment of 15 years of age. The total paid to survivors, however, can not exceed 60 per cent of the member's wages.

In case of accidents, not fatal, the injured person receives his full salary while under surgical treatment. If after surgical treatment he remains unable to perform his full duties, he receives an annuity of 66⅔ per cent of his average wages in case of total disability; in case of partial disability he receives, during such disability, a fraction of the annuity mentioned above, to be measured by the extent of the partial disability.

The general workings of these two funds are the same as in the case of similar funds for workingmen proper, and it is scarcely necessary to follow the details of their operations.

WORKINGMEN'S LIFE INSURANCE ASSOCIATION.

The desirability of life insurance is unquestionable. But among the working classes large numbers are deterred by their inability to understand the mechanism of insurance, the difference between different kinds of policies, and the real cost of carrying insurance; and in these matters the agents of the insurance companies are not always unbiased advisers.

To obviate the obstacles in the way of life insurance for its employees, and at the same time to cheapen the cost, the firm of Krupp organized in 1877 the present life insurance association. The objects of this association are not to itself offer insurance, but, as stated in its constitution—

1. To encourage insurance among the employees of the firm.

2. By making contracts with companies and undertaking the payment of premiums to secure to employees and their families, under advantageous conditions, the acquisition of life insurance of any kind, to be paid for in full or by annual premiums.

3. To act in general as an intermediary between the insurance companies and the insured.

4. To create a fund for the purpose of insuring the payment of premiums by members and to extend other extraordinary aid as far as its resources permit.

To accomplish these objects the association entered into special contracts with the principal life insurance companies, according to which the association agreed that thereafter it would act as the agent of the companies, that it would encourage insurance in every way, that it

would collect the premiums and pay them over to the companies, and pay to those entitled to it the insurance money due on the death of policy holders; in a word, that it would act as an intermediary in all necessary business transactions.

In return, the companies agreed to pay to the association all commissions that they usually paid to their local agents, and further agreed that they would charge no fee for the making out of policies, nor for medical examination.

The contract was made with a number of companies, in order that greater freedom of choice might be left to those wishing to become insured as to the kind of policies they desired to take out.

To those wishing to become insured, the advantages offered by the association were numerous. First of all, all the troublesome details necessary for securing a policy are managed by the association. All fees for examination or otherwise are abolished.

Financially, the members are benefited through their participation in the funds accumulated by the association through the payments by the insurance companies of sums in lieu of commissions and from gifts and donations received by it. When the association was first founded Mr. Alfred Krupp donated to it 50,000 marks ($11,900), to which he subsequently added 4,000 marks ($952). The firm also makes a regular quarterly contribution equal to one-half the amount received from the companies in lieu of commissions. The expenses of administration are borne entirely by the firm, so that the association has practically no running expenses. The funds of the association are used in the following ways:

One-half of the amount received by the association from the companies is credited to the policy holders as deductions on the amount of their premiums. Premium payments are also reduced by the direct application of the funds of the association. During recent years this reduction has amounted to nearly 8 per cent of the annual premiums. The remaining sum is used to aid members to pay their premiums in times of temporary distress and to grant loans to members. In cases of sickness or accident the necessary premium payments of a member may be made out of this fund. In these cases, however, the association should be reimbursed within a year. In particularly worthy and needy cases members can be permanently released from the necessity of making these repayments.

The system of granting loans enables the members to use their policies as collateral security for the raising of loans in times of emergency. No interest whatever is charged. The amount of the loan is limited to that which the private companies would grant in similar cases. Each loan must be repaid within one year in equal monthly or fortnightly installments. If repayment is not promptly made, interest at the rate of 6 per cent is charged. The policy is always transferred to the association as collateral security.

The affairs of the association are managed by a board of directors, consisting of nine members, of whom six are elected by the general assembly of all members, and three, including the presiding officer, are selected by the firm. The board of directors has at its service a number of confidential agents (Vertrauensmänner), of whom one or more are selected by the board from the membership of each of the forty-two districts into which the workingmen are divided. These officials hold office as an honorary post, and have the functions of insurance agents as far as they relate to efforts to encourage insurance and to preparing applications. The latter, when made, are acted upon by the board of directors. The agents are furnished with special instructions as to their duties and functions.

The workingmen, on taking out insurance, may select any of the policies offered in the rules and prospectuses of the different companies. The amount of the premium is therefore determined in each individual case according to the kind of policy and age, health, and occupation of the applicant. The following table, however, gives an average rate for 1,000 marks ($238), payable at death:

AVERAGE FORTNIGHTLY PREMIUMS ON AN ORDINARY LIFE INSURANCE POLICY FOR $238 IN THE WORKINGMEN'S LIFE INSURANCE ASSOCIATION OF THE KRUPP IRON AND STEEL WORKS.

Age of applicant.	Premium payable fortnightly, fully paid up in—			
	20 years.	25 years.	30 years.	35 years.
20 years	$0.29	$0.26	$0.24½	$0.23
25 years	.31	.28	.26	.24½
30 years	.34	.30½	.28½	.27
35 years	.37½	.34	.31½	.30½
40 years	.42	.38	.36	.34½

The system of the joint insurance of man and wife is one often preferred by workingmen, by which the survivor receives the insurance money. The following table shows the average premium rate per fortnight, fully paid up in 25 years:

AVERAGE FORTNIGHTLY PREMIUMS ON A JOINT LIFE INSURANCE POLICY FOR $238 IN THE WORKINGMEN'S LIFE INSURANCE ASSOCIATION OF THE KRUPP IRON AND STEEL WORKS.

Age of elder person.	Age of younger person.			
	20 years.	25 years.	30 years.	35 years.
25 years	$0.39	$0.40½	.....	.....
30 years	.41	.42	$0.44	.....
35 years	.44	.45	.46½	$0.49
40 years	.48	.49	.50½	.52½

The operations of the association are fully set forth in the following tables (pages 502–504).

BUSINESS CONTRACTED WITH VARIOUS LIFE INSURANCE COMPANIES FOR MEMBERS OF THE WORKINGMEN'S LIFE INSURANCE ASSOCIATION OF THE KRUPP IRON AND STEEL WORKS, 1877 TO 1894.

Year.	New policies.		
	Number.	Amount.	Average.
1877	37	$64,348.61	$1,744.56
1878	1,340	392,288.06	292.84
1879-1884	1,191	410,628.73	344.78
1885-1889	611	315,198.63	515.87
1890	290	95,735.50	330.12
1891-1894	740	383,339.46	518.03

a Should be 2,189 in order to balance. The figures are given, however, as published by the company.

POLICIES HELD BY MEMBERS OF THE WORKINGMEN'S LIFE INSURANCE ASSOCIATION OF THE KRUPP IRON AND STEEL WORKS, BY FACE VALUE OF POLICY, 1878 TO 1894.

Face value of policy.	1878.				1879.			
	Policies.	Per cent.	Amount.	Per cent.	Policies.	Per cent.	Amount.	Per cent.
$35.70								
$47.60								
$71.40	118	8.85	$8,425.20	1.89	109	8.06	$7,782.60	1.65
$71.64 to $142.80	492	36.91	68,472.60	15.36	496	36.69	69,008.10	14.59
$143.04 to $214.20	295	22.13	62,308.40	13.97	292	21.60	61,689.60	13.04
$214.44 to $285.60	129	9.68	33,331.90	7.48	135	9.98	34,855.10	7.37
$285.84 to $476	153	11.48	58,578.60	13.14	155	11.46	59,364.00	12.55
$476.24 to $714	72	5.40	49,837.20	11.18	81	5.99	56,120.40	11.86
$714.24 to $1,428	41	3.08	53,913.80	12.09	47	3.48	61,172.80	12.93
Over $1,428	33	2.47	110,965.27	24.89	37	2.74	123,056.91	26.01
Total	1,333	100.00	445,832.97	100.00	1,352	100.00	473,049.51	100.00

POLICIES HELD BY MEMBERS OF THE WORKINGMEN'S LIFE INSURANCE ASSOCIATION OF THE KRUPP IRON AND STEEL WORKS, BY KIND OF POLICY, 1878 TO 1894.

Kind of policy.	1878.				1879.			
	Policies.	Per cent.	Amount.	Per cent.	Policies.	Per cent.	Amount.	Per cent.
Payable at death or specified age	751	56.34	$328,165.77	73.61	757	55.99	$352,669.11	74.55
For two lives conjointly	577	43.29	115,525.20	25.91	585	43.27	116,501.00	24.63
Endowment	5	.37	2,142.00	.48	10	.74	3,879.40	.82
Total	1,333	100.00	445,832.97	100.00	1,352	100.00	473,049.51	100.00
Insurance per member			349.40				366.99	

BUSINESS CONTRACTED WITH VARIOUS LIFE INSURANCE COMPANIES FOR MEMBERS OF THE WORKINGMEN'S LIFE INSURANCE ASSOCIATION OF THE KRUPP IRON AND STEEL WORKS, 1877 TO 1894.

Policies canceled.			Condition of business at end of year.					
				Policies.			Annual premiums on policies.	
Number.	Amount.	Average.	Persons insured.	Number.	Amount.	Average.	Amount.	Per cent of policies.
.....	.....	.....	35	37	$64,548.61	$1,744.56	$7.13	.....
44	$11,114.60	$252.60	1,276	1,333	445,832.97	334.46	8,999.55	.....
620	189,638.42	305.87	1,825	1,904	666,823.30	350.22	23,225.44	3.48
509	177,182.43	348.10	1,855	2,006	804,839.50	401.22	27,887.88	3.46
107	36,901.90	344.88	2,045	a 2,190	863,673.10	394.37	29,678.98	3.43
464	165,552.46	356.79	2,308	2,466	1,081,460.10	438.55	38,630.65	3.57

POLICIES HELD BY MEMBERS OF THE WORKINGMEN'S LIFE INSURANCE ASSOCIATION OF THE KRUPP IRON AND STEEL WORKS, BY FACE VALUE OF POLICY, 1878 TO 1894.

1884.				1889.				1894.			
Policies.	Per cent.	Amount.	Per cent.	Policies.	Per cent.	Amount.	Per cent.	Policies.	Per cent.	Amount.	Per cent.
3	.16	$107.10	.02	3	.15	$107.10	.01	3	.12	$83.30	.01
12	.63	583.10	.09	11	.55	523.60	.07	12	.49	571.20	.05
133	6.98	9,472.40	1.42	117	5.83	8,318.10	1.03	93	3.77	6,604.50	.61
614	32.25	82,871.60	12.43	539	26.87	72,173.50	8.97	491	19.91	65,200.10	6.03
270	14.18	56,417.90	8.46	228	11.37	47,362.00	5.89	182	7.38	37,746.80	3.49
396	20.80	97,127.80	14.56	508	25.32	123,272.10	15.32	894	36.25	214,783.10	19.86
242	12.71	94,802.20	14.22	283	14.11	111,819.20	13.89	378	15.33	151,803.20	14.04
117	6.14	81,229.40	12.18	143	7.13	100,186.10	12.45	179	7.26	127,294.30	11.77
67	3.52	84,020.80	12.60	104	5.18	129,359.80	16.07	130	5.27	160,792.80	14.87
50	2.63	160,191.00	24.02	70	3.49	211,718.00	26.30	104	4.22	316,580.80	29.27
1,904	100.00	666,823.30	100.00	2,006	100.00	804,839.50	100.00	2,466	100.00	1,081,460.10	100.00

POLICIES HELD BY MEMBERS OF THE WORKINGMEN'S LIFE INSURANCE ASSOCIATION OF THE KRUPP IRON AND STEEL WORKS, BY KIND OF POLICY, 1878 TO 1894.

1884.				1889.				1894.			
Policies.	Per cent.	Amount.	Per cent.	Policies.	Per cent.	Amount.	Per cent.	Policies.	Per cent.	Amount.	Per cent.
1,211	63.60	$512,099.50	76.80	1,295	64.56	$633,658.00	78.73	1,611	65.33	$858,930.10	79.42
612	32.14	129,483.90	19.42	599	29.86	129,210.20	16.05	590	23.92	131,756.80	12.18
81	4.26	25,239.90	3.78	112	5.58	41,971.30	5.22	265	10.75	90,773.20	8.40
1,904	100.00	666,823.30	100.00	2,006	100.00	804,839.50	100.00	2,466	100.00	1,081,460.10	100.00
.....	.....	365.38	.....	.....	.....	385.09	.....	.....	.....	468.57	.....

BENEFITS OBTAINED FOR MEMBERS OF THE WORKINGMEN'S LIFE INSURANCE ASSOCIATION OF THE KRUPP IRON AND STEEL WORKS, 1877 TO 1894.

Year.	Reduction of premiums by use of—		Premiums paid in cases of—		Interest saved.	Other benefits.	Total benefits.	Capital of association at end of year.
	One-half of commissions paid by companies.	Funds of society (limited to 8 per cent of premiums).	Sickness.	Poverty.				
1877	.....	.....	.....	.....	.....	.....	.....	$12,238.31
1878	$354.82	.....	.....	.....	.....	$64.41	$419.23	13,724.30
1879-1884	3,571.50	.....	$1,565.68	$941.51	$1,074.32	889.89	8,042.90	24,875.24
1885-1889	3,554.26	$7,322.99	1,958.93	627.52	1,762.71	938.15	16,164.56	28,293.99
1890	886.99	2,177.28	480.50	84.51	392.50	184.97	4,206.75	28,593.54
1891-1894	3,470.11	10,537.59	2,115.67	324.11	1,563.32	694.24	18,705.04	27,738.29
Total	11,837.68	20,037.86	6,120.78	1,977.65	4,792.85	2,771.66	47,538.48	.....

COOPERATIVE DISTRIBUTIVE STORES.

During the first period of the rapid development of Essen the system under which the workingmen made their purchases was, as has been shown, demoralizing in the extreme. Not only were the articles purchased poor in quality and the prices exorbitant, but the workingmen were demoralized through the system of buying on credit that was encouraged by the storekeepers in order better to keep their customers in their power, through various lottery and prize schemes in connection with purchases, and through the prevalence of liquor selling in ordinary stores.

To remedy this the Krupp firm, in 1868, at the request of the members of a cooperative distributive society, took over its business, and with this as a beginning inaugurated a vast system of distributive stores (Consum-Anstalten) in which almost every article desired by the workingmen could be purchased.

As regards profits, the original policy of the firm was to so regulate prices that the stores should pay for themselves and neither profit nor loss be sustained. Though at this time there was no true division of profits the stores were never run on the truck-store principle. In all cases where a profit was realized it was applied in some way for the benefit of the workingmen. On January 1, 1890, however, in order to remove any suspicion that selfish interests were allowed to have any play, the firm introduced the true principle of cooperation whereby all profits were to be distributed among purchasers in proportion to the value of their purchases. Sales, as has been said, are made on an absolutely cash basis, but each purchaser is provided with a pass book, in which is entered the amount of his purchases in order that his share in the profits can be determined. Anyone can trade at the stores, but only employees of the firm are entitled to share in profits.

Under this régime prices are kept as near as possible to current prices elsewhere, though care is exercised that the latter be not exceeded. Printed posters are displayed showing the prices of the principal articles of consumption and indicating any changes in prices. The following table, compiled by the firm from their quotations, forms an interesting exhibit of the variation in prices of the principal commodities since 1872. The table can be used as a fair statement of the range of prices in Germany during these years, and has, therefore, more than a special interest.

PRICES OF COMMODITIES IN THE COOPERATIVE DISTRIBUTION STORES OF THE KRUPP IRON AND STEEL WORKS, 1872 TO 1893.

Articles.	Unit.	1872.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.
Potatoes	Bushel	$0.450	$0.405	$0.428	$0.363	$0.462	$0.518	$0.515	$0.514	$0.515	$0.410	$0.417
Rye bread	Pound	.017	.017	.019	.017	.016	.017	.018	.018	.020	.022	.018
Beef:												
First quality	Pound	.....	.....	.....	.140	.140	.140	.140	.139	.136	.134	.135
Second quality	Pound	.....	.....	.....	.119	.119	.123	.130	.128	.126	.123	.124
Veal:												
First quality	Pound	.....	.....	.....	.135	.135	.130	.131	.140	.140	.139	.140
Second quality	Pound	.....	.....	.....	.124	.124	.119	.121	.130	.130	.128	.130
Mutton:												
First quality	Pound	.....	.....	.....	.135	.135	.138	.144	.148	.140	.143	.140
Second quality	Pound	.....	.....	.....	.124	.124	.127	.134	.138	.130	.130	.130
Pork	Pound	.....	.....	.....	.147	.160	.162	.151	.144	.151	.161	.159
Pork sausage	Pound	.155	.157	.159	.163	.171	.173	.173	.164	.162	.162	.162
Smoked bacon	Pound	.151	.155	.154	.162	.180	.173	.155	.162	.166	.172	.190
American lard	Pound	.124	.117	.139	.152	.143	.122	.100	.090	.113	.138	.147
Butter, first quality	Pound	.246	.253	.264	.268	.270	.245	.225	.224	.255	.247	.243
Wheat flour	Pound	.041	.044	.043	.033	.034	.039	.035	.034	.037	.036	.035
Groats	Pound	.054	.054	.054	.054	.047	.043	.043	.041	.044	.043	.043
Buckwheat	Pound	.031	.036	.038	.034	.032	.030	.028	.027	.032	.035	.031
Beans, white	Pound	.029	.030	.038	.032	.026	.028	.028	.025	.030	.028	.029
Pease	Pound	.027	.029	.035	.034	.033	.031	.028	.028	.031	.032	.031
Lentils	Pound	.035	.032	.039	.045	.043	.039	.035	.034	.045	.060	.051
Barley	Pound	.037	.038	.040	.039	.038	.037	.034	.033	.035	.032	.030
Rice	Pound	.039	.037	.037	.035	.041	.039	.038	.037	.037	.037	.035
Vermicelli	Pound	.073	.078	.086	.069	.065	.065	.065	.065	.065	.065	.065
Cheese, Holland	Pound	.150	.149	.137	.137	.145	.142	.140	.145	.158	.162	.155
Turnip tops	Pound	.041	.036	.034	.039	.030	.040	.033	.025	.030	.034	.031
Coffee, Java	Pound	.212	.252	.278	.272	.266	.254	.241	.220	.217	.203	.184
Salt	Pound	.019	.019	.019	.019	.019	.019	.019	.019	.019	.019	.019
Prunes, Turkish	Pound	.060	.073	.086	.077	.060	.065	.076	.060	.072	.062	.072
Sugar:												
Refined	Pound	.127	.121	.119	.114	.108	.116	.100	.097	.097	.098	.101
Loaf	Pound	.162	.165	.166	.158	.144	.146	.138	.130	.130	.130	.130
Soap:												
Bar	Pound	.065	.065	.065	.063	.060	.060	.060	.060	.057	.052	.052
Soft	Pound	.048	.048	.047	.043	.043	.043	.042	.040	.039	.039	.039
Rape-seed oil	Quart	.184	.171	.145	.145	.160	.166	.152	.130	.125	.123	.131
Petroleum	Quart	.084	.080	.048	.048	.063	.060	.043	.040	.048	.045	.041

Articles.	Unit.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.
Potatoes	Bushel	$0.448	$0.368	$0.396	$0.373	$0.350	$0.442	$0.442	$0.388	$0.549	$0.484	$0.315
Rye bread	Pound	.017	.016	.016	.015	.015	.014	.015	.016	.019	.019	.015
Beef:												
First quality	Pound	.145	.140	.140	.135	.130	.127	.140	.148	.151	.151	.142
Second quality	Pound	.134	.130	.130	.124	.109	.113	.129	.137	.140	.140	.131
Veal:												
First quality	Pound	.140	.140	.140	.140	.140	.135	.140	.143	.147	.151	.144
Second quality	Pound	.130	.130	.130	.130	.130	.124	.130	.132	.135	.130	.122
Mutton:												
First quality	Pound	.140	.140	.140	.140	.140	.140	.140	.148	.151	.151	.141
Second quality	Pound	.130	.130	.130	.123	.119	.119	.123	.130	.130	.127	.108
Pork	Pound	.156	.135	.136	.130	.130	.125	.154	.161	.145	.149	.154
Pork sausage	Pound	.169	.162	.162	.162	.162	.153	.169	.175	.173	.171	.168
Smoked bacon	Pound	.176	.154	.156	.151	.151	.141	.174	.185	.162	.154	.164
American lard	Pound	.137	.115	.103	.093	.095	.103	.108	.108	.105	.112	.141
Butter, first quality	Pound	.254	.254	.235	.236	.232	.245	.257	.257	.261	.262	.258
Wheat flour	Pound	.032	.028	.028	.027	.028	.029	.031	.032	.036	.033	.027
Groats	Pound	.043	.038	.035	.035	.035	.035	.035	.039	.041	.042	.039
Buckwheat	Pound	.030	.027	.026	.028	.025	.026	.028	.028	.030	.031	.028
Beans, white	Pound	.030	.030	.029	.026	.025	.029	.028	.027	.030	.024	.024
Pease	Pound	.032	.031	.028	.024	.024	.024	.027	.029	.033	.033	.030
Lentils	Pound	.049	.045	.040	.051	.049	.057	.053	.051	.050	.063	.065
Barley	Pound	.028	.028	.028	.028	.028	.028	.028	.030	.033	.032	.027
Rice	Pound	.035	.035	.035	.034	.032	.032	.032	.033	.035	.035	.035
Vermicelli	Pound	.065	.064	.060	.060	.060	.060	.060	.060	.063	.064	.060
Cheese, Holland	Pound	.147	.150	.156	.160	.159	.164	.171	.173	.173	.173	.173
Turnip tops	Pound	.027	.024	.024	.028	.026	.029	.030	.026	.027	.029	.030
Coffee, Java	Pound	.182	.184	.172	.174	.232	.222	.245	.268	.286	.285	.285
Salt	Pound	.019	.019	.019	.019	.019	.019	.019	.021	.022	.022	.022
Prunes, Turkish	Pound	.070	.059	.049	.048	.049	.047	.046	.056	.074	.049	.063
Sugar:												
Refined	Pound	.091	.081	.073	.071	.065	.069	.078	.070	.069	.070	.071
Loaf	Pound	.126	.111	.106	.108	.108	.108	.110	.108	.108	.108	.108
Soap:												
Bar	Pound	.055	.052	.049	.045	.043	.043	.043	.043	.048	.046	.048
Soft	Pound	.039	.037	.035	.035	.035	.035	.032	.041	.036	.037	.039
Rape-seed oil	Quart	.154	.133	.112	.101	.102	.116	.137	.150	.137	.121	.118
Petroleum	Quart	.043	.043	.043	.041	.041	.043	.043	.042	.041	.039	.036

The system developed with extraordinary rapidity, until to-day its operations are conducted on a vast scale. In 1891 the system comprised 68 shops. Of these, 15 were general stores, 9 dry goods and clothing stores, 3 shoe stores, 1 hardware and house-furnishing store, 6 bake shops, 7 meat shops, 2 tailor shops, 7 restaurants, 8 liquor shops, 2 coffeehouses, etc. In connection with these are numerous establishments for the production or manufacture of various articles. Of these, the chief are 1 slaughterhouse and sausage factory, 2 bakeries, 1 shoe shop, 1 flour mill, 1 brush factory, 1 paper-bag factory, and an ice factory. As part of the system, there is also a hotel, a club room, 10 weekly markets, and a laundry.

The stores are all well housed. A central magazine was opened on July 1, 1874. It is a three-story structure, comprising a central building 22.4 meters (73½ feet) by 31 meters (101.7 feet), and 19 meters (62.3 feet) high, and two wings, each 18 meters (59 feet) by 15.2 meters (49.9 feet), and the same height as the central building. It contains a general store, a dry goods and clothing store, a hardware store, a shoe store, offices, a storage room, 2 tailor shops, 1 dining room for the personnel employed in the building, and dwellings for the janitress, saleswomen, servants, and porter. It also contains cellars for wine, beer, and leather. The building is provided with hot-air heating apparatus and a hydraulic elevator. There is also a three-story warehouse 62 by 15.7 meters (203.4 by 51½ feet), with a cellar and attic for the storage of supplies destined for the general stores. It contains also a coffee-roasting room and a spice mill. A gas motor supplies power to the elevator, spice mill, etc. A petroleum storage reservoir, with a capacity of 50,000 liters (13,208½ gallons), tank wagons, and iron receptacles at the stores are also provided.

The articles sold at the general stores are groceries, bakery and meat products, bottled beer, wines, liquors, mineral waters, tobacco, cigars, brushes, glass, porcelain and earthenware, stationery, school books, etc. The following list shows the quantity of the principal grocery products sold at these stores during the year 1890 :

Wheat flour	pounds	2,059,322	Rape-seed oil	pounds	326,385
Groats	do	55,675	Turnip tops	do	108,514
Buckwheat flour	do	120,813	Coffee	do	458,034
Beans	do	201,178	Substitutes for coffee	do	145,628
Pease	do	243,461	Salt	do	577,831
Lentils	do	39,403	Prunes	do	153,618
Barley	do	79,221	Coarse sugar	do	56,941
Rice	do	246,611	Lump sugar	do	512,980
Vermicelli	do	68,685	Bar soap	do	190,949
Cheese	do	19,013	Soft soap	do	526,631
American lard	do	249,111	Petroleum	do	648,130
Butter	do	246,413	Potatoes	bushels	35,392
Coal	tons of 2,240 lbs	9,890			

The personnel of the general stores consists of 15 managers, 15 assistants, 2 apprentices, 71 saleswomen, and 35 laborers.

In the dry goods and clothing stores are sold dry goods, clothing, underwear, hats, umbrellas, sewing machines, etc. Forty-two persons are employed in these stores.

In the tailor shops clothing is made to order for men and boys, and such articles as bedding, underwear, overalls, etc. Repair work of all sorts is done. The personnel comprises a master tailor, a cutter, 21 journeymen tailors, and 2 seamstresses.

In the shoe stores foot wear of all kinds is kept in stock. Boots and shoes are made to order and repaired at the shoe shops. The personnel of the shops and stores consists of 1 master shoemaker, 11 journeymen shoemakers, 1 apprentice, 1 clerk, and 3 saleswomen.

The bakeries are furnished with 14 ovens, 4 kneading machines, and 1 cutting machine, operated by steam power. There is a mill for rough-grinding rye. The personnel of the mill and bakeries comprises 29 employees. The production during 1890 was 1,184,886 kilograms (2,612,223 pounds) of rye bread, 548,108 kilograms (1,208,370 pounds) of mixed (rye and wheat) bread, 233,523 kilograms (514,829 pounds) of wheat bread, besides quantities of rolls, toast, etc.

The abattoir comprises stables and pens for beeves, hogs, and sheep, a slaughterhouse, meat-storage room, sausage factory, sales room, smokehouse, 2 cold-storage rooms ventilated by water power, 3 cellars for pickling meat, drying rooms, warerooms, etc. Since July 1, 1885, the slaughtering and inspecting of meat is done at public abattoirs as required by law. In 1890 1,335 beeves, 1,343 calves, 4,907 hogs, and 817 sheep were slaughtered for the cooperative stores. The personnel of the abattoirs, including clerks, salesmen, cashiers, and butchers, comprised 52 persons.

The restaurants all have gardens and some have tenpin alleys. One, at Bredeney, has lodgings for transient guests. The restaurant in the central building is for persons employed there. One of the restaurants at Cronenberg has a hall with a seating capacity of 1,500 persons, a stage, galleries, and bookcases. It is intended for society meetings and festivities. In the wintertime the personnel of the Essen theater give fortnightly theatrical performances at this hall. The total amount of beer sold at the various bars and restaurants during 1890 was 1,424,539 liters (376,328 gallons). The personnel of the restaurants comprises 16 employees, such as managers, assistants, and laborers.

The hotel at Essen, the "Essener Hof," is intended for persons doing business with the Krupp establishment. Strangers are admitted at all times without any formalities. The hotel has a clubroom for the use of officials of the firm. The hotel contains twenty-five bedrooms, breakfast and dining halls, a billiard parlor, a tenpin alley, and a large garden. All beverages used at the hotel and restaurants must be obtained from the cooperative stores, as well as all food, which is sold at prices fixed by the management of the cooperative stores.

The wines and liquors for the restaurants and general stores are kept

in five cellars, where 1 master cooper and 8 journeymen coopers are employed. In 1890 there were sold 167,000 bottles of wine, each containing three-fourths of a liter ($1\frac{3}{5}$ pints).

All the ice which is not required for the steel works, the abattoir, stores, and restaurants, is sold to customers on subscription. In 1890 (May 1 to September 30), the total cost of ice for the season to the subscribers was 27 marks ($6.43) for 15 kilograms (33 pounds) per day, 20 marks ($4.76) for 10 kilograms (22 pounds), and 11 marks ($2.62) for 5 kilograms (11 pounds) daily, delivered at the house. Ice is always on sale at the central magazine. It is delivered gratis to the members of the sick fund, when required on account of sickness.

Coffee stands are located at the main entrances to the steel works, at which coffee and rolls are sold in the morning before working hours. The average daily consumption in 1890 was 400 cups of coffee and 800 rolls.

The brush factory supplies all the brushes needed in the steel works and at the various stores. It employs 1 master brush maker, 2 skilled laborers, 12 partial invalids, and 2 assistants.

The paper-bag factory employs seven young women, daughters of widows.

Clothing is ironed at a fixed rate both for employees and others. Eighteen widows and daughters of former employees are employed in this work.

Weekly markets were established at the Cronenberg and Schederhof colonies for the sale of vegetables, bakery products, fish, and other food stuffs on squares belonging to the firm. Market masters employed by the firm keep the places in order, rent the chairs and stands, and attend to the weighing of products. Dealers pay a fee for the use of their stands.

Widows and dependents of deceased workingmen often secure employment through these various institutions by sewing overalls, cartridge bags, etc., for the steel works; shirts, quilts, etc., for the drygoods department; and by cleaning up stores, offices, etc. Sewing machines are sold to them upon payment of small installments. During the year 1890, 449 widows and daughters of deceased workingmen were employed in this way, earning altogether 43,031.74 marks ($10,241.55).

The development of these stores has introduced entirely new habits regarding savings and the avoidance of debt. The small private stores have not been entirely crushed out by its competition, but since the system of apportioning profits, adopted in 1890, a great advance is yearly made. During the fiscal year 1890–91 there was a total of 11,154 pass books in use, showing about that number of families patronizing the stores. It is impossible to tell how many persons other than employees of the firm were also customers, but the number was said to be very large. The average profit distributed on sales is about 5 per cent.

FUNDS FOR THE BENEFIT OF WORKINGMEN OTHER THAN THE REGULAR RELIEF AND PENSION FUNDS.

WORKINGMEN'S AID FUND.

Complete as are the provisions of the different benefit and pension funds, they can not provide for all cases of distress, even though the cases are such as are quite worthy of outside aid. Such, for instance, are those of workingmen who are sick, but can not fulfill the conditions entitling them to relief from the different relief funds, or when an unusual amount of sickness is experienced in a workingman's family. To meet these and other cases where general aid is desirable, Mr. Friedrich Alfred Krupp, in accordance with the wishes of his late father, set aside 1,000,000 marks ($238,000) to constitute a workingmen's fund (Arbeiter-Stiftung). The administration of the fund is determined by a constitution adopted November 19, 1888.

Briefly recapitulated, the provisions of the constitution are the creation of a fund of 1,000,000 marks ($238,000), to be known as the Krupp's workingmen's fund. Only the interest of the fund can be used, the capital must remain undiminished. The earnings must be applied exclusively to the benefit of the workingmen of the steel works at Essen and of the branches elsewhere, and for the dependents of the workingmen. By workingmen in this sense is meant not only those in actual service, but also those who have left the employ of the works or its branches on account of invalidity. Dependents include surviving members of the family after the death of a workingman.

The income of the fund can not be used for any expenditures resulting from present or future regulations. This applies as well to expenditures imposed by law upon the proprietor as to such expenditures as are obligatory upon such institutions as sick and pension funds, poor associations, etc., on account of statutory requirements.

The income is applied, first of all, to the rendering of aid in money or money value in cases of merited distress. It may also be used for the erection of institutions having for their object the physical and spiritual welfare of Krupp's employees or for assisting such institutions, already existing, in the form of subsidies. The assistance in the form of money or money value is especially granted:

1. To workingmen who were totally disabled but who have no claim to pensions—that is, such as have become incapacitated for work before having attained the time of service required by the pension regulations.
2. To widows and orphans of deceased workingmen who have no claim to pensions, namely, widows and orphans of workingmen who died or became permanently disabled before having attained the time of service required by the regulations.
3. To workingmen who remained ill and unable to work after the expiration of the time allowed, by the sick fund, for granting sick benefits, and who have therefore lost their claims upon that fund. Assistance may be given during the continuance of such sickness and disability.

Workingmen's schools (Fortbildungsschulen) have existed in Essen since 1860. The course of instruction covers drawing, French, German, natural philosophy, mathematics, history, mensuration, mechanics, and the science of machinery and construction. Attendance is compulsory for all apprentices. An average tuition fee of 18 marks ($4.28) per year is charged. The schools at Essen have 21 classes, 45 teachers, and about 900 pupils; a similar one at Altendorf has 7 evening and 7 drawing classes, 22 teachers, and about 300 pupils. The firm gives material aid to these schools, as well as to mining schools in the mining districts.

Industrial schools are of two kinds, those for women and those for girls of school age. Instruction in the former consists of sewing by hand and machine, embroidery, dressmaking, and ironing. The instruction is in charge of a principal and five teachers, all but two of whom have passed industrial teachers' examinations. The school is open to members of employees' families as well as to others. The tuition fees for the industrial schools for women are as follows: Sewing by hand, 3 hours daily, 2 marks (48 cents) per month, and 6 hours daily, 3 marks (71 cents) per month; sewing by machine, 3 hours daily, 9 marks ($2.14) per 3 months, and 6 hours daily, 15 marks ($3.57) per 3 months; embroidery, 3 hours daily, 3 marks (71 cents) per month, and 6 hours daily, 5 marks ($1.19) per month; dressmaking, 3 hours daily, 10 marks ($2.38) per 3 months; ironing, twice per week, 4 marks (95 cents) per month.

These fees are doubled for persons not members of employees' families. In 1890 the average attendance was 77 pupils in sewing by hand, 46 in sewing by machine, 29 in dressmaking, 28 in embroidery, and 6 in ironing, or a total of 186 pupils.

There are three industrial schools for girls of school age, situated in the three principal groups of workingmen's houses. The object of these schools is to give instruction in knitting, sewing, and crocheting. Only children of employees are admitted. The attendance in 1890 was 1,897 pupils, of whom 62 per cent were instructed in knitting, 30 per cent in crocheting, and 8 per cent in sewing. The pupils furnish their own materials, and when the articles are finished they can take them home for the use of the family. The tuition fee is 20 pfennigs (4.8 cents) per month in advance, but if the pupil attends regularly during the 15 months of the course and has a good record all the tuition money is refunded. The principal of the school for adults has supervision over these classes. The other teachers, 38 in number, are mostly widows and dependents of deceased employees.

The object of the housekeeping school is the education of girls over 14 years of age in the duties of an ordinary household. The instruction comprises the preparation of meals, preserving of fruits and vegetables, buying victuals, cultivating garden vegetables, washing, wringing, ironing, mending, darning, and all sorts of housework. A trained matron and two assistants have charge of the instruction. During attendance girls must board at the school. No tuition is charged, and the board and lodging cost 6 marks ($1.43) per month.

In the case of poor persons this is frequently remitted in part. The course covers 4 months. Twelve new pupils are admitted every 2 months, making thus an attendance of 24 at any one time. Certificates are given to all who complete the course, and in meritorious cases money prizes are awarded.

A midday meal is served daily at the housekeeping school, for 35 pfennigs (8.3 cents), for widowers and their children, unmarried invalids, married men whose wives are ill, and widows who are prevented by work or sickness from doing their own cooking. In cases where, on account of the illness of the housewife, there is real destitution in the family, the physician may order that meals be furnished gratuitously.

The industrial and the housekeeping schools are under the management of the cooperative stores. The firm of Krupp furnishes the school accommodations and bears all expenses of maintenance, heating supplies and apparatus, salaries, etc. The housekeeping school cost in this manner a sum of 14,800 marks ($3,522.40) during the first year of its operation, 1890–91.

It is unnecessary to comment upon the practical and useful character of the educational work of the firm. It seems to be perfectly adapted to the needs of the people.

HEALTH SERVICE.

To cope with the problem of public health consequent upon the aggregation of so many employees in one place, the firm has been under the compulsion of organizing a health service as elaborate and complete as that maintained by a government of a principality. Its service includes an elaborate board of health code, the maintenance of a corps of physicians, and the organization of a complete hospital service, and, finally, in order that exact information may always be at hand concerning the condition of the health of workmen, complete statistics concerning the health not only of employees but of their families as well.

The hospital service is naturally the most important and the central feature of the work. The service was first inaugurated in 1872, when buildings originally intended for the care of the wounded in the Franco-Prussian war were converted into hospital quarters. In 1888 the three original pavilions were supplemented by two new ones for women and children. In 1890 the three old ones were thoroughly renovated and partly reconstructed. The hospital is situated near the center of the town of Essen. The buildings are well isolated, thus affording plenty of light and air. The grounds cover an area of 1.7302 hectares (about 4¼ acres), of which 2,924 square meters (31,474 square feet) are built upon. The vacant ground is used for garden purposes for patients only.

Every attention is paid to the care of the buildings. All the walls are painted in light oil colors and the floors are of oiled hard wood. The bathrooms and water-closets have tiled wainscoting and tiled floors. The bedsteads are of iron and have wire mattresses. Every

precaution is thus taken to insure cleanliness. Lighting is done by gas and heating by hot-air furnaces. The operating room, dispensary, and the room for operating upon diphtheria patients are heated by gas stoves. The hospital is entirely owned by the firm, and its management is in the hands of the chief physician. The sick-fund management has no authority over it. The fund simply turns over its patients, for which it pays the firm 1.50 marks (35.7 cents) per day for men, 1.20 marks (28.6 cents) for women, 80 pfennigs (19 cents) for children, and 40 pfennigs (9½ cents) for infants. Any deficit is met by the firm.

The firm has also two hospitals for the treatment of epidemic cases. The larger of these is situated to the north and the other to the south of the steel works. They are both well isolated. The former consists of six barracks arranged in V shape and an administration building at the open end of the V. Each barrack contains four sick wards and a sitting room, lavatory, and bathroom. Each ward has four beds. The cubic air space is 40 cubic meters (1,413 cubic feet) per bed. Each ward is completely separated by wall partitions from every other. Each has its own stove. Oil is used for lighting. The administration building is one story high and contains nine rooms for the office and dwelling of the physician and his help.

The smaller hospital consists of two barracks, an administration building, and a deadhouse. Each barrack contains two large sick wards, a hall, sitting room, and water-closet. Each ward has fifteen beds. The air space per bed is 40 cubic meters (1,413 cubic feet). Special attention is given in both hospitals to light and ventilation.

The following tables give some idea of the scope of the work done by the hospital service in Essen:

STATISTICS OF DISEASES TREATED AT THE HOSPITALS OF THE KRUPP IRON AND STEEL WORKS, 1872-73 TO 1893-94.

Year.	Internal diseases.		Surgical cases.		Skin diseases.		Venereal diseases.		Total diseases.	
	Cases.	Per cent of deaths.	Cases.	Per cent of deaths.	Cases.	Per cent of deaths.	Cases.	Per cent of deaths.	Cases.	Per cent of deaths.
1872-73..	533	6.1	466	3.2	162	.....	47	.....	a 1,228	3.6
1873-74..	355	7.0	344	3.1	117	.....	28	.....	844	4.3
1874-75..	223	8.1	225	1.3	59	.....	22	.....	529	4.9
1875-76..	217	6.5	194	2.0	50	.....	18	.....	479	3.8
1876-77..	129	9.3	134	3.7	23	.....	14	.....	300	5.6
1877-78..	129	13.1	183	0.5	59	.....	27	.....	a 401	4.4
1878-79..	115	13.0	175	.....	35	.....	32	.....	357	4.2
1879-80..	107	9.3	190	2.6	36	.....	35	.....	368	4.0
1880-81..	289	13.7	289	2.8	86	.....	62	.....	726	5.2
1881-82..	226	9.7	357	1.7	88	.....	90	.....	761	3.6
1882-83..	222	2.6	228	0.8	65	.....	24	.....	539	5.5
1883-84..	150	14.0	169	2.3	36	.....	16	.....	371	6.5
1884-85..	152	13.8	227	0.9	22	.....	17	.....	418	5.8
1885-86..	256	8.6	285	0.7	23	.....	23	.....	587	4.1
1886-87..	358	10.1	423	0.9	18	.....	29	.....	828	4.8
1887-88..	464	9.1	532	1.1	31	.....	18	.....	1,045	4.9
1888-89..	484	8.1	623	0.6	66	.....	21	.....	1,194	3.6
1889-90..	655	10.0	860	1.0	88	.....	20	.....	1,623	6.2
1890-91..	528	9.8	979	1.1	159	.....	28	.....	a 1,695	6.1
1891-92..	617	12.6	1,137	1.3	197	.....	34	.....	1,985	4.7
1892-93.	616	18.3	1,057	1.9	225	.....	63	.....	1,961	6.7
1893-94..	506	15.4	1,041	2.0	208	.....	53	.....	1,808	5.4

a This total does not agree with the sum of the items. The figures are given, however, as published by the company.

DAILY EXPENDITURES PER PATIENT AND TOTAL DAYS OF SICKNESS OF ALL PATIENTS IN THE HOSPITALS OF THE KRUPP IRON AND STEEL WORKS, 1878-79 TO 1893-94.

[Physicians' fees, depreciation, and amortization are not included.]

Year.	Daily expenditures per patient.										Total days of sickness.
	Repairs on buildings.	Wages and salaries.	Fuel.	Printing and stationery.	Miscellaneous supplies.	Food.	Drugs and bandages.	Washing and mending.	Miscellaneous expenditures.	Total.	
1878-79.	$0.1071	$0.0614	$0.0118	$0.0004	$0.0030	$0.2298	$0.0429	$0.0260	$0.0025	$0.4849	9,948
1879-80.	.0428	.0558	.0100	.0009	.0032	.2192	.0317	.0225	.0009	.3870	10,838
1880-81.	.0104	.0346	.0104	.0011	.0032	.1900	.0383	.0188	.0006	.3074	18,950
1881-82.	.0047	.0381	.0107	.0003	.0029	.1833	.0295	.0167	.0008	.2870	20,508
1882-83.	.0168	.0494	.0120	.0011	.0055	.1956	.0343	.0182	.0006	.3335	14,871
1883-84.	.0167	.0668	.0139	.0007	.0080	.2207	.0302	.0245	.0010	.3825	9,519
1884-85.	.0283	.0568	.0129	.0007	.0063	.1877	.0278	.0224	.0009	.3438	11,138
1885-86.	.0489	.0639	.0153	.0014	.0081	.2199	.0360	.0277	.0068	.4280	10,216
1886-87.	.0311	.0473	.0162	.0017	.0053	.1938	.0378	.0246	.0051	.3629	14,959
1887-88.	.0572	.0403	.0167	.0014	.0055	.2283	.0473	.0274	.0117	.4358	19,263
1888-89.	.0621	.0458	.0195	.0019	.0085	.2614	.0525	.0316	.0242	.5075	21,900
1889-90.	.0507	.0334	.0220	.0009	.0127	.2779	.0504	.0334	.0240	.5054	31,022
1890-91.	.2113	.0369	.0274	.0012	.0112	.3176	.0400	.0342	.0237	.7035	34,868
1891-92.	.0388	.0362	.0329	.0013	.0095	.3560	.0419	.0356	.0326	.5848	33,683
1892-93.	.1454	.0469	.0145	.0018	.0110	.3313	.0570	.0445	.0377	.6901	28,049
1893-94.	.0580	.0484	.0301	.0023	.0135	.3437	.0415	.0448	.0557	.6380	27,164

HOSPITAL PATIENTS AND COST OF HOSPITAL SERVICE OF THE KRUPP IRON AND STEEL WORKS, 1875-76 TO 1893-94.

Year.	Average employees of Krupp firm.	Hospital patients.			Days of patients in hospital.		Hospital expenditure (including depreciation).		Per cent of employees in hospitals.
		Men.	Women and children.	Daily average.	Total.	Per patient.	Total.	Per employee.	
1875-76.	9,720	479	.....	28.9	10,552	22.03	$5,003.71	$0.51	4.93
1876-77.	8,510	300	.....	22.8	8,306	27.69	3,946.28	.46	3.53
1877-78.	9,255	401	.....	26.4	9,644	24.05	4,276.38	.46	4.33
1878-79.	8,655	357	.....	27.3	9,948	27.87	5,643.93	.65	4.12
1879-80.	8,190	368	.....	29.7	10,838	29.45	4,970.15	.61	4.49
1880-81.	9,767	726	.....	51.9	18,950	26.10	6,629.01	.68	7.43
1881-82.	11,021	813	.....	56.2	20,508	25.23	6,842.98	.62	7.38
1882-83.	10,753	539	.....	40.7	14,871	27.59	5,573.96	.52	5.01
1883-84.	10,207	371	.....	26.1	9,519	25.66	4,072.89	.40	3.63
1884-85.	10,402	418	.....	30.5	11,138	26.65	4,465.83	.43	4.02
1885-86.	11,138	587	.....	28.0	10,216	17.40	4,930.17	.44	5.27
1886-87.	12,257	697	131	41.0	14,959	18.07	6,973.40	.57	5.69
1887-88.	13,057	734	311	52.8	19,263	18.43	10,216.15	.78	5.62
1888-89.	13,403	730	464	60.0	21,900	18.34	14,600.59	1.09	5.45
1889-90.	14,967	1,135	567	85.0	31,022	18.23	19,608.34	1.31	7.58
1890-91.	15,918	1,192	575	95.5	34,868	19.73	28,827.75	1.81	7.49
1891-92.	16,511	1,384	601	92.3	33,683	16.97	23,118.37	1.40	8.38
1892-93.	16,808	1,236	729	76.8	28,049	14.27	22,562.40	1.34	7.35
1893-94.	17,168	1,148	660	74.4	27,164	15.02	20,798.34	1.21	6.69

MORTALITY OF EMPLOYEES OF THE KRUPP IRON AND STEEL WORKS LIVING IN ESSEN, 1870 TO 1894.

Year.	Employees.	Deaths.	Deaths per 1,000.	Year.	Employees.	Deaths.	Deaths per 1,000.	Year.	Employees.	Deaths.	Deaths per 1,000.
1870 ..	7,084	82	12	1879 .	7,964	104	13	1887 .	12,674	152	12
1871 ..	8,810	152	17	1880 .	8,806	145	16	1888 .	13,198	110	8
1872 ..	10,394	142	14	1881 .	10,598	148	14	1889 .	14,223	147	10
1873 ..	11,671	150	13	1882 .	11,011	113	10	1890 .	15,519	158	10
1874 ..	11,543	137	12	1883 .	10,491	159	15	1891 .	16,161	173	11
1875 ..	9,743	121	12	1884 .	10,213	139	14	1892 .	16,865	173	10
1876 ..	8,998	100	11	1885 .	10,656	120	11	1893 .	17,100	145	8
1877 ..	8,586	86	10	1886 .	11,723	125	11	1894 .	16,706	107	6
1878 ..	9,414	119	13								

OTHER INSTITUTIONS.

It would be almost impossible to describe the thousand and one ways in which the firm manifests its solicitude for the permanent welfare of its employees in addition to the ways already described. Contributions are made to almost every institution having for its object the elevation of the working classes. At the works provision is made for the furnishing of coffee and rolls at a minimum cost. A cup of coffee with sugar and a roll is provided for 7 pfennigs ($1\frac{2}{3}$ cents). Several eating houses with gardens are also provided for workingmen who find it too far to return home for meals.

The unusual extent to which bathing facilities have been provided for employees should be especially commented upon. Bathrooms are provided at the exits of most of the shops. In addition there is a central bath house containing seven bathrooms with tubs, hot and cold water, and shower appliances, and a steam bath in which six persons can be accommodated simultaneously. The object of this central bath house is, first of all, the accommodation of patients who are not inmates of the hospital. Where baths are ordered by the physician the fees are paid by the sick fund. Other employees may also use the baths when not required by patients. The fees for employees are 15 pfennigs (3.6 cents) for tub baths and 1 mark (23.8 cents) for steam baths. The same fees are charged to the sick fund for patients. Free baths are allowed to workingmen whose work is of such a nature as to make baths very desirable.

At the Hanover mines a bath house containing 28 cells with shower-bath appliances was erected at a cost of 20,000 marks ($4,760). The daily attendance at these baths is about 1,100 persons.

Another bath house containing 16 cells for shower baths and one tub and shower bath was erected at the smelting works near Duisburg, at a cost of 10,000 marks ($2,380). Out of 491 men employed there in 1890, the average daily attendance at the baths was 107 persons. No fees are charged for the use of these baths.

CONCLUSION.

The magnitude of the enterprise of Krupp at Essen, and the variety of social institutions that are found there, almost preclude any attempt at a general résumé of results. There are, however, certain general principles underlying the management of all these institutions that, though it is impossible to incorporate them in constitutions, yet determine the real spirit in which the institutions are carried on. They may be said to constitute the soul of the institutions. A study of these institutions in their practical workings shows, first of all, that they have been conceived in the most liberal spirit as regards the participation of the workingmen themselves in their management. In spite of the great prominence of the firm, the independence of the individual has been sacrificed as little as possible.

There can be no doubt that the firm has succeeded in gaining the respect and good wishes of its employees. The feeling that the firm has the true welfare of the latter at heart seems to be universal. At the same time Essen is not the result of any sentimental effort for reform. To the visitor the first serious impression is that here there has been no carrying out of a caprice, or a personal desire to do this or that for the workingmen. Everything has the appearance of having been the result of stern necessity. Each institution has developed in response to a distinct demand. Economy is everywhere. The laborers are not given china where tin or iron will suffice. The schools are especially plain, but they have the appearance of being of a character suitable to a laboring population.

That the laborers constitute a contented class is shown by the almost absolute absence of labor difficulties, and the high degree of stability of employment. Twenty-one per cent of all employees have been continuously employed over fifteen years, and 23 per cent have been employed more than five but less than fifteen years, or a total of 44 per cent that have been in the employ of the firm more than five years. It should be remembered, moreover, that the rapid increase in the number of employees within recent years has necessitated the constant entrance of men to swell the number of those employed but a short time.

As regards the effect of the expense entailed upon the firm by its various social enterprises, the firm is emphatic in the statement that it has been more than repaid by the better class of workingmen that they have been able to obtain and retain, and the absence of friction between the management and its personnel. All improvements in the condition of its employees have been followed by improvements in the character of the work performed by them, and by increased faithfulness to the interests of the establishment.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

MARYLAND.

Fourth Annual Report of the Bureau of Industrial Statistics of Maryland. 1896. A. B. Howard, jr., Chief of Bureau. 170 pp.

This report treats of the following subjects: Personal property values, 95 pages; building and loan associations, 56 pages; strikes and lockouts, 10 pages.

The presentation concerning building and loan associations consists principally of quotations from the Ninth Annual Report of the Department of Labor. Under the title of "Strikes and Lockouts" a short historical statement and the estimated loss in wages are given for each labor disturbance that occurred in the State during the year. The estimated loss in wages is fixed at $25,000.

PERSONAL PROPERTY VALUES.—This presentation is a continuation and completion of an investigation commenced in 1894 and published in the report for that year. The inquiry of 1894 was confined to the city of Baltimore. The statistics for 1895 show, for each county in the State, the number of estates probated and the value of personal property belonging to them, for each year of two periods of five years each—1875 to 1879 and 1890 to 1894, inclusive. The estates for each county are arranged in nine classes according to value. Estates which were not of sufficient value to pay off all the debts charged against them are not included.

The following statement gives the State totals, not including Baltimore City, for the two periods:

ESTATES PROBATED AND VALUE OF PERSONAL PROPERTY.

Estates having personal property valued—	1875 to 1879, inclusive.		1890 to 1894, inclusive.	
	Number.	Value.	Number.	Value.
Under $500	1,724	$370,810	2,286	$473,195
$500 to $1,000	895	593,898	1,062	706,341
$1,000 to $2,500	1,053	1,480,010	1,135	1,665,308
$2,500 to $5,000	535	1,703,783	508	1,687,610
$5,000 to $10,000	362	2,380,861	321	2,132,349
$10,000 to $25,000	255	3,592,562	203	2,927,474
$25,000 to $50,000	65	1,968,715	62	1,944,497
$50,000 to $100,000	27	1,852,223	29	1,827,179
Over $100,000	10	2,265,003	16	9,455,844
Total	a 4,936	b 16,197,865	5,622	22,819,797

a Figures here apparently should be 4,926; those given are, however, according to the original.
b Figures here apparently should be $16,207,865; those given are, however, according to the original.

MICHIGAN.

Thirteenth Annual Report of the Bureau of Labor and Industrial Statistics of Michigan. Year ending February 1, 1896. Charles H. Morse, Commissioner; H. R. Dewey, Deputy Commissioner. xxvi, 402 pp.

This report consists of an introduction of 26 pages, which includes statistics of street railway companies, and 6 parts which treat, respectively, of the following subjects: Laborers engaged in transportation, 227 pages; organized labor, 44 pages; miscellaneous statistics, 63 pages; penal and reformatory institutions, 9 pages; strikes, 30 pages; Michigan laws of 1895 affecting labor, etc., 26 pages.

The statistics presented under the first two titles are the results of original investigations by the bureau. The other presentations consist principally of compilations from official reports.

LABORERS ENGAGED IN TRANSPORTATION.—The individual reports from employees on street railways, hack and bus lines, etc., and from owners who drive their own hacks, buses, drays, or teams are published in detail. The following statement indicates the character of the questions asked and gives some of the principal facts brought out by the analysis of the statistics:

PERSONS ENGAGED IN TRANSPORTATION IN 1895.

Items.	Employees on—		Owners who drive their own hack, bus, dray, or team.
	Street railways.	Hack and bus lines, etc.	
Total number considered	1,865	3,127	1,943
Native born	1,070	1,930	.....
Foreign born	795	1,195	.....
Married	1,285	1,721	1,614
Single	557	1,376	306
Widowed	23	30	21
Average hours in day's work	10½	10¼	10½
Number reporting hours of work increased during past year	577	119	.....
Number reporting hours of work not increased during past year	958	2,846	.....
Number reporting hours of work decreased during past year	95	31	.....
Number who work overtime	520	1,157	.....
Number who do not work overtime	1,300	1,829	.....
Number who receive extra pay for overtime	398	345	.....
Number who do not receive extra pay for overtime	121	783	.....
Average daily wages	$1.69	$1.35	*a* $2.16
Number reporting wages increased during past year	748	224	322
Number reporting no change during past year	824	2,588	710
Number reporting wages decreased during past year	45	235	850
Number who lost time during past year	1,614	1,552	1,202
Number who lost no time during past year	247	1,557	731
Average number of days lost for those who lost time	.....	56½	73+
Number who saved money during past year	798	774	592
Number who did not save money during past year	994	2,222	1,301
Average savings of those who saved	$123.28	$100.84	$209.73
Number who say times are better than one year ago	1,087	827	498
Number who say times are worse than one year ago	244	820	1,007
Number who own a home	460	619	1,112
Number who own a home clear of incumbrance	254	322	631
Number who rent homes	821	1,149	607
Average rent paid per month	$7.27	$6.46	$7.53
Number who say cost of living increased during past year	833	676	765
Number who say cost of living decreased during past year	79	142	154
Number who buy beer or spirituous liquors	495	1,305	740
Average expenditure per month for beer or spirituous liquors by those who admit their use	$1.10	$1.05	$1.96
Number who belong to labor organizations	1,074	277	168

a Average per vehicle per day.

In some of the returns answers were not given to all the questions. It therefore does not follow that the difference between the number given for any particular item in the above summary and the total number considered represents the number reporting the reverse of what is shown.

ORGANIZED LABOR.—Reports were received from 237 labor organizations in the State, which are published in detail. The organizations reported 19,192 male and 302 female members. There were 2,203 members initiated and 1,256 suspended during the year. Twenty-one organizations gave out-of-work—73 sick, 107 strike, and 93 burial—benefits. Fifty-eight furnished life insurance, and 194 reported the amount of daily wages received by members, the average wage being $2.28 per day. The average hours in a day's work, as reported by 198 organizations, was 9⅔. There were 23 organizations that reported 31 strikes, involving 5,956 men, as having occurred during the year. The employees were successful in 16 strikes, failed in 2, and compromised 7, no information as to settlement being furnished for 6.

NORTH CAROLINA.

Ninth Annual Report of the Bureau of Labor Statistics of the State of North Carolina for the year 1895. B. R. Lacy, Commissioner; L. D. Terrell, Chief Clerk. v, 408 pp.

This report treats of the following subjects: Cotton and woolen factories, 76 pages; agricultural statistics, 146 pages; reports of laboring men, 80 pages; tobacco and miscellaneous factories, 33 pages; railroads, 10 pages; organized labor, 25 pages; fishing industry, 15 pages; newspapers, 13 pages; bureaus of labor, 10 pages.

The presentation concerning the first four subjects treated consists of statistics as to capital, machinery, materials and products, employees and wages, hours of work, and the general social and financial condition of employees in the cotton and woolen, tobacco, and miscellaneous factories; also the financial, social, and moral condition of farmers, and the wages, hours of labor, educational, moral, and financial condition of mechanics and laboring men in various industries. These statistics are shown in detail, the individual reports being given for numerous factories and workingmen in different sections of the State. The reports are arranged by counties, and are followed by letters from employers and employees giving their personal views on the various subjects treated.

Totals and general averages for the State are shown for cotton and woolen factories and for farmers.

The following statement gives statistics of cotton and woolen factories for 1895:

Number of mills	157
Capital	$14,339,342
Cotton and wool consumed, pounds	123,658,775

Products:	
Yarn, pounds	79,473,949
Domestics, yards	87,742,655
Plaids, yards	51,737,547
Woolen goods, yards	18,424,200
Number of employees:	
Men	4,888
Women	6,175
Children	3,311
Children under 14 years of age—	
Boys	778
Girls	780
Total employees	15,932
Average wages per day of—	
Machinists	$1.93½
Engineers	1.61½
Firemen	.89½
Skilled men	1.10
Unskilled men	.70
Skilled women	.65
Unskilled women	.50
Children	.30
Average number of days in operation during year	286½
Average number of hours constituting day's work	11½
Number of spindles	913,458
Number of looms	24,853

The reports show that almost invariably wages were paid weekly and in cash, and that wages had neither increased nor decreased as compared with 1894; also that the sanitary condition of the factories and of the houses of employees was good, that the employees had religious and educational facilities of which they availed themselves and were improving mentally and morally, and that a large percentage of them could read and write.

Following are statistics relating to farm laborers:

AVERAGE WAGES AND VALUE OF RATIONS PER MONTH OF FARM LABORERS.

	1893.	1894.	1895.
Men	$9.50	$9.00	$8.75
Women	5.50	5.00	4.65
Children	3.20	3.00	2.90
Rations	4.25	4.00	3.84
Rent and pasturage	.....	3.00	2.57

In explanation of the comparatively low wages of farm laborers it is stated that they have no house rent to pay, "their fire wood is obtained by simply going out and gathering it up—it is free; and in most every instance the landlord gives them a team to haul it up with, and charges nothing for it. Gardens, truck patches, and places to raise pigs and poultry they have free of charge. We find, too, that the majority of tenant farmers are furnished with horse and plow to work their patches with free, and often work them in the landlord's time."

of producing a bale (400 pounds) of cotton during
.50; a bushel of wheat, at 62 cents; a bushel of corn,
el of oats, at 31 cents.

ORTH CAROLINA.—The number and average wages
different classes of employees on each railway in the
3,616 miles of road in the State in 1895, an increase
total for 1894. In 1893 there were 9,000 employees;
895, 9,439.

OR.—Letters from the different labor organizations
te describing the objects and general condition of
are published under this title.

REPORT OF THE MASSACHUSETTS BOARD TO INVESTIGATE THE SUBJECT OF THE UNEMPLOYED.

Report of the Massachusetts Board to Investigate the Subject of the Unemployed. January 1, 1895, and March 13, 1895. Davis R. Dewey, David F. Moreland, and Haven C. Perham, Commissioners. ccxx, 582 pp.

This report was prepared under authority of an act of the legislature approved April 12, 1894. The subject is treated under the following titles: Part I, Relief measures, 264 pages; Part II, Wayfarers and tramps, 123 pages; Part III, Public works, 135 pages; Part IV, The amount of nonemployment and causes thereof, 87 pages; Part V, Final report, 193 pages.

RELIEF MEASURES.—The various agencies, both public and private, that were at work in Massachusetts during the winter of 1893–94 to relieve or prevent distress among the unemployed are grouped in five classes.

1. Special citizens' relief committees, organized primarily to aid the unemployed.

2. Municipal departments having charge of public works upon which it was possible to give employment.

3. Labor organizations giving aid either by usual out-of-work benefits or by extraordinary methods.

4. Private charities, including all permanent relief-giving organizations not connected with the State or municipal government on the one hand, or with labor organizations on the other.

5. The permanently established public relief agencies administered for the State and for municipalities, such as poor departments.

The information for the entire State is summarized under these groups and then presented in detail for the different municipalities. Some of the features discussed are as follows: Methods of obtaining funds, character of the recipients of relief, distribution of relief, value of the relief work, characteristics of relief by public work, wages offered, and economic results.

The thirteen citizens' relief committees of the State raised about $147,000, of which two-thirds was raised in Boston and one-half of the remainder in Lynn. The amount of extra appropriation to give work to the unemployed upon public works was $352,000. The out-of-door aid granted by public poor departments in all cities and towns of the State was $700,000 for the year 1893–94.

The amount of relief afforded was much greater than in previous normal years. The whole relief afforded by citizens' relief committees and employment upon public works may be considered an addition to the usual amounts. Most of that afforded by trade organizations is unusual. The increase of relief by private charities is estimated at about 50 per cent. The increase by public poor departments was absolutely about one-eighth.

It is impossible to ascertain definitely the number of persons assisted by means of all the methods referred to. Five of the leading relief societies aided 6,462 families in 1893–94, as compared with 3,642 in 1892–93. The number aided by the citizens' relief committees, employed upon the public works and by the public poor department, represented about 85,000 families, being an increased or unusual aid for more than 40,000 persons.

WAYFARERS AND TRAMPS.—Methods of reducing the number of wayfarers and tramps and of determining those worthy of assistance are discussed. The commissioners, in conclusion, recommend legislation designed to give effect to the following principles:

It should be easier to convict vagrants and tramps.

Overseers of the poor in every town shall provide decent accommodations of food and lodging for wayfarers, and in return therefor shall demand work. Refusal on the part of wayfarers to comply with this demand shall constitute prima facie evidence of tramping. No wayfarer shall be lodged in police stations or in tramp rooms connected with such station. These stations shall be reserved solely for those under criminal charge or sentence. Failure on part of the overseers of the poor to demand work shall be subject to penalties.

All persons found riding on freight trains without authorized permission should be punished with the penalties against tramps.

There should be uniform methods of treating wayfarers throughout the State.

It would be desirable for this Commonwealth to establish a separate institution for the care and training of tramps and vagrants under 30 years of age.

PUBLIC WORKS.—The following are extracts from the conclusions derived from a careful consideration of the large body of conflicting evidence presented under this title:

That, as a rule, the city does not do construction work directly as cheaply as can a contractor to whom the work is intrusted.

That, in exceptional instances, where civil-service rules are honestly and uniformly followed, and where the city is not too strictly limited by ordinances as to the minimum rates of wages and other conditions of labor, the city can do its work as cheaply as any private employer of labor.

That the quality of the work done by direct municipal employment is generally better than that done by contractors.

Nonemployment is frequently aggravated by the influx of a large number of nonresident and ofttimes alien laborers, brought in by contractors.

Greater care should be taken in the letting of contracts to prevent the introduction of large gangs of nonresident and particularly alien labor, unless there is clear proof that there is a scarcity in the vicinity of labor to be hired at a fair market price.

The plans for the establishment of factories or farms on State initiative appear impracticable.

THE AMOUNT OF NONEMPLOYMENT AND CAUSES THEREOF.—There is but little statistical material available which will show the amount of nonemployment in the different trades and occupations throughout the State for any series of years. The commission made special inquiries into conditions of employment in a few selected industries, with the purpose of determining whether the amount of nonemployment has been increasing or decreasing during the past ten years. The information is presented in detail for each of the trades investigated, it being impracticable to make a summarization.

FINAL REPORT.—The entire subject is discussed under the two general heads of temporary or emergency relief and permanent measures. The measures for temporary relief are treated under five subdivisions, as follows:

1. The permanently established relief agencies of town and State, such as the poor departments.
2. Municipal departments of public works, temporarily used for furnishing work relief.
3. Private charities.
4. Special relief committees.
5. Labor organizations.

The measures for permanent relief are treated as follows:

1. Removal of residents of the cities to the country and farms.
2. Removing the competition, and hence displacement of free labor occasioned by the labor of inmates of reformatory and penal institutions.
3. Reducing the hours of a day's labor.
4. Restriction of immigration.
5. An extension of industrial education.
6. Improving the intelligence and employment offices, or establishing free employment offices.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

Systematisches Verzeichnis der Gewerbe für statistische Zwecke der Handels- und Gewerbekammern in den im Reichsrathe vertretenen Königreichen und Ländern. 1896. 87 pp.

This report comprises a list of all the skilled trades in the countries represented in the Austrian Parliament (Reichsrath) and which come within the scope of the trade regulations established by law (Gewerbeordnung). It is intended for the use of the chambers of commerce and industry in their statistical work. The list comprises 4,397 industrial and 2,101 mercantile trades. The trades are divided, according to their nature, into 25 classes, comprising 363 groups. The individual trades in a second list are arranged alphabetically.

Die gewerblichen Genossenschaften in Oesterreich. Verfasst und herausgegeben vom statistischen Departement im k. k. Handelsministerium. 1895. 1,480 pp.

This is the first complete statistical report of trades guilds in Austria published by the Government. The guilds herein reported include all the trades associations that are organized under the provisions of the act of March 15, 1883, and also those whose constitutions have not yet been approved as being in conformity with that act. Out of a total of 5,317 trades guilds reported, only 180 come under the latter class.

By the provisions of the act of 1883, all persons carrying on similar skilled trades on an independent basis in the same or neighboring towns, together with their helpers and apprentices, are required to organize themselves into trades guilds. Under certain conditions the guilds may also be composed of persons of different trades. Of the entire number of guilds, 992 are composed of persons of the same and allied trades, and 4,325 of persons of different trades. Owners and employees of factories are not included within the provisions of this act. Owners of shops are known as members proper (Mitglieder), while their employees are regarded as associate members (Angehörige) of the guilds.

The object of the Austrian trades guilds is, among other things, the regulation of the relations between employers and employees, the systematic training of apprentices, the care of workingmen in cases of illness by means of sick insurance funds, and the establishment and maintenance of journeymen's homes (Gesellen-Herbergen), employment agencies, arbitration commissions, trade schools, etc.

The statistics contained in this report cover upper Austria, lower Austria, Salzburg, Styria, Carinthia, Carinola, Trieste and vicinity,

Goritz and Gradiska, Istria, Tyrol, Vorarlberg, Bohemia, Moravia, Silesia, Galicia, Bukowina, and Dalmatia. The date of the enumeration of the individual guilds was December 31, 1894, except in the case of 20, which were founded during the first half of the year 1895, and are also included.

The 5,317 trades guilds within the territory enumerated contained 554,335 members proper (owners of shops) and 692,753 associate members (employees), making a total of 1,247,088 members and associate members. This is equal to 5.3 per cent of the entire resident population.

The following titles of the various tables presented in the report will give a fair idea of the scope of the enumeration:

1. Number of trades guilds and number of members proper and of associate members in the various classes of guilds.

2. Trades guilds classified according to territorial extent and membership.

3. Trades guilds classified according to institutions (dues, membership qualifications, sick funds, etc.).

4. Trades guilds classified according to apprenticeship conditions and regulations.

5. Relief funds of the trades guilds.

6. Dates of approval of the constitutions of the guilds, of employees' assemblies, and of the arbitration commissions.

7. Relation between the number of apprentices and the number of journeymen.

8. Trades guilds classified according to the dates of their creation.

9. Trades guilds classified according to the population of the localities in which they are situated.

10. Trades guilds for single trades, by industries.

11. Provinces and minor divisions and the number of trades guilds in each.

12. Statistics showing population, number of proprietors of establishments, number of trades guilds, and number of members proper.

The tables present the statistics by provinces and minor divisions. Information is also given in detail for each individual guild.

The following statement shows the guilds, classified according to the number of members in each:

MEMBERSHIP OF TRADES GUILDS.

Trades guilds having a membership of—	Number.	Per cent.
1 to 30 members and associates	195	3.7
31 to 150 members and associates	2,879	54.2
151 to 300 members and associates	1,352	25.4
301 to 600 members and associates	586	11.0
601 to 1,500 members and associates	187	3.5
Over 1,500 members and associates	74	1.4
Not reported	44	.8
Total	5,317	100.0

It appears from the report that 9.8 per cent of all the trades guilds have no journeymen and 11.8 per cent have no apprentices in their membership. There are, on an average, in a single guild 104.3 members proper, 97.5 journeymen, and 32.8 apprentices, or a total membership of 234.6 per guild.

In connection with these guilds there are various auxiliary institutions created for the purpose of carrying out the objects of their organization, as contemplated by the act of 1883. Thus, of the whole number of guilds enumerated, 3,196, or 60.1 per cent, have journeymen's assemblies; 3,049, or 57.3 per cent, have arbitration commissions; 122, or 2.3 per cent, have trade and continuation schools, and 399, or 7.5 per cent, have journeymen's homes (Gesellen-Herbergen). In 1,495, or 28.1 per cent, of the guilds journeymen may be represented in the executive councils.

A very important feature of the guilds is the existence of relief funds. Prior to the act of 1859 there was no regular system of sick-relief organization in trades guilds. Although there existed special journeymen's funds, neither these nor the regular guild funds could be regarded as actual sick funds. The act of 1859 required the guilds to either establish funds for the relief of journeymen in case of sickness, or to participate in existing sick funds. This act was so amended by that of March 30, 1888, that all existing sick funds came under the provisions of the latter act, and as a result they now bear a close resemblance to the sick-insurance funds of Germany.

The report shows that there were 1,030 special sick funds participated in by 1,475 guilds. This leaves 3,842, or 72.3 per cent, of the guilds without special relief funds. Seven hundred and thirty-four, or 71.3 per cent, of the sick funds pay benefits equal to the legal minimum required in the case of district sick funds, while 32, or 3.1 per cent, pay larger amounts. In 264, or 25.6 per cent, of the journeymen's sick funds the benefits are of such a nature as not to permit of comparison.

By an act of April 4, 1889, apprentices who are members of trades guilds are permitted to participate in special sick-relief funds. At the time of the enumeration there were 313 such funds, participated in by 388 trades guilds. There were, in addition, 27 funds for both journeymen and apprentices, and 42 proprietors' sick funds. The report shows the existence of 23 special funds for other forms of relief.

The dues required of participants in the benefits of the journeymen's sick-relief funds vary in the different guilds. In 762, or 74 per cent of the funds, the dues are equal to 2 per cent of the wages, and in 15, or 1.5 per cent, they are over 2 per cent of the wages. In 150, or 14.5 per cent of the funds, the dues are fixed at 10 kreutzer (nearly 5 cents) or under per week, while in 103, or 10 per cent of the funds, they are over 10 kreutzer (nearly 5 cents) per week.

Each trades guild makes its own restrictions and regulations regarding the employment and education of apprentices. The report shows

that 4,797, or 90.2 per cent, of the guilds have regulations limiting the number of apprentices, and in 85.8 per cent of these cases the limitations relate to the employment of apprentices by masters who have no journeymen employees.

Following are the terms of apprenticeship required by the constitutions of the various guilds: 2 years or under, in 3.1 per cent of the guilds; 3 years in 23 per cent; 4 years in 6.5 per cent; 2 to 3 years in 4.7 per cent; 3 to 4 years in 17.3 per cent; from 2 to 4 years in 45.4 per cent.

Special regulations governing the examination of apprentices are provided for in 4,282, or 80.5 per cent, of the guilds.

The following statement shows the relation between the number of journeymen and the number of apprentices in the trades guilds:

JOURNEYMEN AND APPRENTICES IN TRADES GUILDS.

Trades guilds having—	Number.	Per cent.
Neither journeymen nor apprentices	280	5.3
Journeymen, but no apprentices	269	5.1
Apprentices, but no journeymen	161	3.0
As many apprentices as journeymen	115	2.2
More journeymen than apprentices	3,396	63.8
More apprentices than journeymen	1,012	19.0
Not reported	84	1.6
Total	5,317	100.0

The following statement shows the number of the present trades guilds founded during each of the specified periods:

DATE OF ESTABLISHMENT OF TRADES GUILDS.

Period.	Number.	Per cent.
Eighth century	1	0.02
Eleventh century	1	.02
Thirteenth century	2	.04
Fourteenth century	2	.04
Fifteenth century	14	.26
Sixteenth century	37	.70
Seventeenth century	97	1.82
First half of eighteenth century	53	1.00
Second half of eighteenth century	51	.96
1801 to 1859	60	1.13
1860 to 1882	372	7.00
1883 to 1895	4,593	86.38
Unknown	34	.63
Total	5,317	100.00

The periods during the present century were divided, as indicated, in order to show the development as affected by legislation. The first period, namely, 1801 to 1859, was prior to the act of 1859. During the second period, 1860 to 1882, the guilds operated under that act. The last period, 1883 to 1895, shows the development under the act of March 15, 1883.

Statistique des Grèves et des Recours à la Conciliation et à l'Arbitrage Survenus Pendant l'Année 1895. Office du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. xii, 336 pp.

In Bulletin No. 1 was given a brief account of strikes in France during the year 1894, with a short recapitulation of the principal figures concerning strikes during the period 1890 to 1894, based on the annual volumes concerning strikes published by the French labor bureau. The present volume relates to strikes during 1895, and its principal results are summarized in the following notice. In the preparation of this statement the same structure of tables and form of presentation have, with a single exception, been followed. It is thus an easy matter to compare the information for 1895 with that for 1894 and prior years.

In 1895 there were reported a total of 405 strikes, involving 1,228 establishments, in which 45,801 workingmen participated as strikers, and resulting in a loss of 617,469 days labor, which latter figure, however, includes 61,597 days lost by 5,899 persons who were not strikers but were thrown out of employment as the result of strikes.

In 1894 there were but 391 strikes, but they involved 1,731 establishments, 54,576 strikers, and caused a loss of 1,062,469 (*a*) days of labor. The number of strikers in 1895, moreover, represented but 12.83 out of every 1,000 persons productively employed, as against 19.83 in 1894. Strikes, therefore, on the whole, were considerably less severe in 1895 than in the preceding year.

But little difference is discernible as regards the degree of success achieved by the strikers in the two years. In 1895 out of the total of 403 strikes (2 strikes not having been terminated when the record closed) 100, or 24.81 per cent, were successful, 117, or 29.03 per cent, were partly successful, and 186, or 46.16 per cent, resulted in failure. The percentages for 1894 were 21.48, 32.99, and 45.53, respectively. A really better criterion of results would be to take the number of strikers as a basis. Doing this, and eliminating the number of strikers involved in strikes not yet terminated, it will be found that 8,565, or 18.72 per cent, of strikers succeeded, 20,672, or 45.18 per cent, partly succeeded, and 16,521, or 36.10 per cent, failed to maintain their demands. In 1894 the percentages were 23.63, 45.41, and 30.96, respectively.

The great majority of strikes in 1895, 320 out of 405, involved but 1 establishment, 30 involved from 2 to 5 establishments, 20 from 6 to 10, 27 from 11 to 25, and 8 from 26 to 50 establishments.

The two tables that follow show the number of strikes, strikers, and establishments involved according to the results of the strikes, as well as the number of days work lost and the proportion that the number of strikers represent of the total number of working people according to 17 main groups of industries.

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a The report for 1894 gives the loss as 1,062,480 days.

STRIKES IN 1895, BY INDUSTRIES.

Industry.	Succeeded.		Succeeded partly.		Failed.		Total.	
	Strikes.	Establishments.	Strikes.	Establishments.	Strikes.	Establishments.	Strikes.	Establishments.
Agriculture, forestry, and fisheries	.....	.....	2	2	2	2	4	4
Mining	2	2	4	4	3	3	9	9
Quarrying	4	17	3	22	6	8	13	47
Food products	4	22	.....	.....	3	52	7	74
Chemical industries	1	1	2	5	5	10	8	16
Printing	1	1	1	1	13	13	15	15
Hides and leather	11	31	9	9	18	21	a 39	a 62
Textiles proper	32	66	45	52	63	93	a 141	a 212
Clothing and cleaning	1	1	2	2	4	5	7	8
Woodworking	3	7	4	6	7	32	14	45
Building trades (woodwork)	2	9	8	110	6	68	16	187
Metal refining	1	1	1	1	3	3	5	5
Metallic goods	16	39	7	66	21	23	44	128
Precious-metal work	.....	.....	.....	.....	.....	.....	.....	.....
Stone cutting and polishing, glass and pottery work	4	4	2	14	8	8	14	26
Building trades (stone, earthenware, glass, etc.)	14	55	24	226	15	99	53	380
Transportation and handling	4	21	3	16	9	43	16	80
Total	100	277	117	536	186	483	b 405	b 1,298

a Including 1 strike not yet terminated.
b Including 2 strikes not yet terminated.

STRIKERS AND DAYS OF WORK LOST IN 1895, BY INDUSTRIES.

Industry.	In successful strikes.	In partly successful strikes.	In strikes which failed.	Total strikers.	Strikers per 1,000 work people. (a)	Days of work lost.
Agriculture, forestry, and fisheries	.....	53	8	61	0.02	53
Mining	265	1,506	738	2,509	b 21.13	51,919
Quarrying	705	740	421	1,866	(c)	8,997
Food products	528	.....	365	893	6.97	1,165
Chemical industries	305	1,564	2,042	3,911	65.18	61,956
Printing	150	12	210	372	3.87	1,730
Hides and leather	786	459	872	d 2,129	d 16.66	d 16,412
Textiles proper	3,101	5,899	5,610	d 14,641	d 20.27	d 190,655
Clothing and cleaning	16	32	97	145	.20	3,800
Woodworking	291	337	259	887	6.20	11,966
Building trades (woodwork)	440	407	417	1,264	(e)	20,503
Metal refining	420	300	597	1,317	13.86	12,298
Metallic goods	650	689	967	2,306	7.61	28,820
Precious-metal work	.....	.....	.....	.....	.....	.....
Stone cutting and polishing, glass and pottery work	148	645	1,762	2,555	24.50	135,483
Building trades (stone, earthenware, glass, etc.)	585	5,613	826	7,024	f 19.27	48,550
Transportation and handling	175	2,416	1,330	3,921	16.61	23,162
Total	8,565	20,672	16,521	g 45,801	g 12.83	g 617,469

a Census of 1891.
b Including quarrying.
c Included in mining.
d Including 1 strike not yet terminated.
e Included in building trades (stone, earthenware, glass, etc.).
f Including building trades (woodwork).
g Including 2 strikes not yet terminated.

According to the number of strikes the industry most affected was that of textiles proper. A total of 141 strikes, involving 212 establishments and 14,641 strikers, and resulting in a loss of 190,655 days labor, occurred in this industry. Next in importance came that of the building trades, the two groupings together having had 69 strikes, involving 567 establishments and 8,288 workingmen, and causing a loss of 69,053 days labor. Metallic goods came third with 44 strikes, 128 establish-

ments, 2,306 strikers, and 28,820 days lost. The same three industries occupied the first three places in this respect, and in the same order, in 1894.

As regards the relative number of persons in each industry taking part in strikes, however, the chemical industry seems to have been especially affected by strikes, over 65 per cent of all workingmen in that industry participating in 1895; stone cutting and polishing, glass and pottery work coming second with 24.50 per cent of all workers engaged in strikes.

The information given in the two preceding tables is shown in the tables which follow, according to the causes or objects for which strikes were undertaken instead of according to industries.

STRIKES IN 1895, BY CAUSES.

[A considerable number of strikes were due to two or three causes, and the facts in such cases have been tabulated under each cause. Hence the totals for this table necessarily would not agree with those for the preceding tables.]

Cause or object.	Succeeded.		Succeeded partly.		Failed.		Total.	
	Strikes.	Establishments.	Strikes.	Establishments.	Strikes.	Establishments.	Strikes.	Establishments.
For increase of wages	48	180	78	434	70	282	196	896
Against reduction of wages	13	14	13	13	30	31	a 57	a 59
For reduction of hours of labor with present or increased wages	23	170	7	83	19	223	49	476
Relating to time and method of payment of wages, etc	13	60	1	13	7	7	21	80
For or against modification of conditions of work	10	17	4	4	14	16	28	37
Against piecework	2	2	2	2	6	50	10	54
For or against modification of shop rules	3	3	1	1	15	15	19	19
For abolition or reduction of fines	3	3	2	2	7	7	12	12
Against discharge of workmen, foremen, or directors, or for their reinstatement	7	18	3	3	18	20	a 29	a 42
For discharge of workmen, foremen, or directors	16	18	5	5	35	38	56	61
Against employment of women	.....	.....	.....	.....	3	3	3	3
For discharge of apprentices or limitation in number	1	5	.....	.....	1	1	2	6
Relating to deduction from wages for the support of insurance and aid funds	3	29	.....	.....	.....	.....	3	29
Other	2	2	1	1	8	39	11	42

a Including 1 strike not yet terminated.

STRIKERS AND DAYS OF WORK LOST IN 1895, BY CAUSES.

[A considerable number of strikes were due to two or three causes, and the facts in such cases have been tabulated under each cause. Hence the totals for this table necessarily would not agree with those for the preceding tables.]

Cause or object.	In successful strikes.	In partly successful strikes.	In strikes which failed.	Total strikers.	Days of work lost.
For increase of wages	4,224	15,781	8,861	28,866	382,310
Against reduction of wages	682	842	1,649	a 3,204	a 39,621
For reduction of hours of labor with present or increased wages	3,602	777	1,727	6,106	67,451
Relating to time and method of payment of wages, etc	1,734	610	334	2,678	13,291
For or against modification of conditions of work	1,109	2,707	1,046	4,862	88,143
Against piecework	32	500	519	1,051	12,386
For or against modification of shop rules	208	35	1,257	1,500	14,150
For abolition or reduction of fines	502	55	1,262	1,819	8,722
Against discharge of workmen, foremen, or directors, or for their reinstatement	938	747	3,520	a 5,217	a 177,741
For discharge of workmen, foremen, or directors	1,318	837	2,798	4,953	33,523
Against employment of women	.....	.....	52	52	1,276
For discharge of apprentices or limitation in number	164	.....	21	185	6,524
Relating to deduction from wages for the support of insurance and aid funds	378	.....	.....	378	5,373
Other	85	142	244	471	3,503

a Including 1 strike not yet terminated.

The demand for higher wages or the refusal to accept a reduction of wages alone or in connection with other causes still continues, as in former years, the chief cause of strikes. This cause accounts for 62.47 per cent of all strikes, 70 per cent of all strikers, and 68.33 per cent of days of labor lost. The question of the employment or nonemployment of workingmen, foremen, or directors figures as the second important cause, having produced 85 strikes in 1895 as against 78 in 1894. Demand for shortening the hours of labor caused 30 strikes in 1894 and 49 in 1895. These strikes resulted in the substitution of 11 hours of labor in place of 12 in 14 cases, of 10 hours in place of 11 in 8 cases, and of 10 hours in place of 12 in 4 cases.

The results of strikes according to their importance and severity—that is, according to the number of persons involved and the duration of the strikes—is shown in the two tables that follow:

STRIKES AND STRIKERS, BY DURATION OF STRIKES, IN 1895.

Days of duration.	Strikes.				Strikers.			
	Succeeded.	Succeeded partly.	Failed.	Total.	Succeeded.	Succeeded partly.	Failed.	Total.
7 or under	72	73	131	276	6,441	11,405	7,182	25,028
8 to 15	16	20	25	61	1,253	5,298	2,173	8,724
16 to 30	4	13	16	33	350	1,502	3,190	5,042
31 to 100	8	11	11	a 31	521	2,467	2,719	a 5,738
101 or over	.....	.....	3	a 4	.....	.....	1,257	a 1,269
Total	100	117	186	b 405	8,565	20,672	16,521	b 45,801

a Including 1 strike not yet terminated. b Including 2 strikes not yet terminated.

DURATION OF STRIKES IN 1895, BY NUMBER OF STRIKERS INVOLVED.

Strikers involved.	Strikes.				Days of duration.				
	Succeeded.	Succeeded partly.	Failed.	Total.	1 to 7.	8 to 15.	16 to 30.	31 to 100.	101 or over.
25 or under	25	27	84	a 137	101	23	6	6	a 1
26 to 50	29	20	31	a 81	63	6	5	a 6	1
51 to 100	18	24	38	80	54	15	8	3	.....
101 to 200	16	21	18	55	28	9	9	9	.....
201 to 500	12	18	10	40	26	5	3	5	1
501 to 1,000	.....	3	3	6	2	1	1	1	1
1,001 or over	.....	4	2	6	2	2	1	1	.....
Total	100	117	186	b 405	276	61	33	a 31	a 4

a Including 1 strike not yet terminated. b Including 2 strikes not yet terminated.

The great majority of strikes were comparatively unimportant affairs. Two hundred and seventy-six, or over two-thirds, lasted less than 8 days and but 35 lasted a month or over, while 137, or over one-third, involved less than 26 persons and but 12 involved over 500 persons. None of the 12 large strikes were completely successful, 7 having resulted in a compromise and 5 having been failures.

There are two classes of information contained in these reports of the French bureau that were not touched upon in the first notice, but concerning which it will perhaps be well to make some mention. A considerable portion of each report, in the present case 169 pages, is devoted to giving an account of the more important strikes of the year; and secondly, beginning with the volume for 1893, information is given concerning the extent to which use has been made of the law of December 27, 1892, relating to the arbitration of labor disputes.

Briefly stated, this law provides that on the arising of any difficulty between an employer and his employees the question in dispute can, if both parties agree, be submitted to a council of conciliation, or, if an actual strike has been begun, to a council of arbitration, which, under the presidency of the local justice of the peace, attempts to arrive at a solution of the difficulty, or the justice of the peace may himself take the initiative and request the parties to submit their difference to such a council. This council consists of delegates, not exceeding five in number, chosen by each party. If they fail to reach an agreement they can appoint one or more arbitrators. The submission of a dispute to arbitration, however, is entirely voluntary, and the decision, no matter how arrived at, can not be legally enforced, its acceptance being a matter to be determined by the parties as they deem best.

Demands for the application of this law were made in the case of 84 of the 405 strikes occurring during 1895, or in 20.74 per cent of all labor disputes. The initiative in making these demands was taken 46 (a) times by the workingmen, twice by the employers, 3 times by both the employers and employees, and 34 (a) times by the justice of the

a In the case of 1 strike extending to the departments of the Rhone and the Isère the initiative in 1 department was taken by the workingmen and in the other by the justice of the peace.

peace. In 4 cases work was resumed without waiting for the constitution of councils of arbitration, in 3 of which the strikers abandoned their claims and in the fourth a compromise was effected. In the remaining 80 cases submission to arbitration was refused in 34, of which 32 were by the employers and 2 by the workingmen. In 2 of these cases the intervention of the justice of the peace led to a settlement, and in a third the employer was compelled to accept arbitration by those of his employees who had not struck threatening to join the others. Arbitration was thus definitely refused in 31 cases. In these 31 cases the refusal to arbitrate was followed in 3 cases by the immediate resumption of work. The remaining 28 cases were fought out, resulting in success for the strikers in 4 cases, in partial success in 9, and in failure in 15.

Councils of arbitration were constituted for the adjustment of the remaining 49 strikes. Twenty-four of these were immediately adjusted by the council, and 5 others later on as the result of further negotiations. Of these 29 thus settled, 4 were in favor of the strikers, 24 were compromised, and 1 was in favor of the employer. It is a matter of interest to notice the large number of strikes that were thus settled by mutual concessions on the part of both parties. The 20 strikes remaining, in which the constitution of councils proved of no avail, resulted in success for the workingmen in 3 cases, in compromise in 8 cases, and failure in 9 cases.

In addition to these 84 strikes in which the constitution of councils of arbitration was asked, 5 demands were made by the employees for the submission of differences to councils of conciliation before the actual outbreak of the strikes. In one of these cases the employers refused to discuss the matter and the workingmen continued their work; in 4 cases a council was constituted and a settlement not being achieved, strikes resulted, the outcome being 2 compromises and 2 failures for the strikers.

The year 1895 was the third year that the law concerning arbitration had been in force. In the first year, 1893, arbitration was requested in 109 of the 634 strikes, or in 17.19 per cent of all strikes; in 1894, in 101 of the 391 strikes, or 25.83 per cent of all strikes. In 1893, 51 of these cases were finally adjusted by the councils, resulting 12 times in success to the strikers, 26 times in a compromise, and 13 times in failure. In 1894, 53 cases were thus adjusted, the results being 13 successes, 24 compromises, and 16 failures. In 1895, if to the 29 cases settled by the councils as the result of formal meetings there be added the 4 strikes adjusted before the councils could be formed and the 3 strikes terminated as soon as the decision of the employers concerning arbitration was known, there were adjusted a total of 36 strikes, 4 of which resulted in success, 25 in compromises, and 7 in failures.

Since the law went into effect, therefore, arbitration was requested in 295 out of 1,430 strikes, or in 20.63 per cent of all strikes. Owing to the refusal to arbitrate, or for other reasons, but 140 of these strikes were actually adjusted by councils of arbitration, their decisions resulting in 29 successes to the strikers, in 75 compromises, and in 36 failures.

Report of the Strikes and Lockouts of 1894 in Great Britain and Ireland. 1895. 345 pp. (Published by the Labor Department of the British Board of Trade.)

This report treats of the state of the labor market and the number, character, magnitude, and method of settlement of the strikes and lockouts that occurred in the United Kingdom during 1894. The statistics are presented in detail for each dispute, and the summarized statements include comparative data for previous years.

The state of the labor market in 1894 and in the seven preceding years is indicated by the percentage of the members of trade societies that were reported as unemployed at the close of each month during the period. These percentages are shown in the following statement:

PERCENTAGE OF MEMBERS OF TRADE UNIONS REPORTED AS UNEMPLOYED AT THE END OF EACH MONTH, 1887 TO 1894.

Month.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.
January	10.3	7.8	3.1	1.4	3.4	5.0	10.0	7.0
February	8.5	7.0	2.8	1.4	2.6	5.7	9.5	6.3
March	7.7	5.7	2.2	1.7	2.8	5.7	8.7	6.5
April	6.8	5.2	2.0	2.0	2.7	5.4	6.9	6.1
May	8.5	4.8	2.0	2.0	3.0	5.9	6.2	6.3
June	8.0	4.6	1.8	1.9	2.9	5.2	5.8	6.3
July	8.5	3.9	1.7	2.3	3.3	5.0	6.2	7.4
August	8.3	4.8	2.5	2.3	4.2	5.1	7.1	7.7
September	7.5	4.4	2.1	2.6	4.5	6.2	7.3	7.6
October	8.6	4.4	1.8	2.6	4.4	7.3	7.3	7.4
November	8.5	3.1	1.5	2.4	3.8	8.3	7.2	7.0
December	6.9	3.3	1.7	3.0	4.4	10.2	7.9	7.7

At the end of 1888 the number of unions reporting the number of their unemployed seldom exceeded 20, with an aggregate membership of 200,000, while at the end of 1894 there were 62 unions reporting with a membership of 362,000. While the increase in the number reported enhances the value of the figures for the later years, the percentages given in the above statement are not absolutely comparable for the entire period of eight years, the general effect being that the percentages for the earlier years are slightly too high.

The statistics concerning the number of strikes and lockouts, and the persons affected by them, in the United Kingdom during 1894 are summarized in the following statement:

STRIKES AND LOCKOUTS AND PERSONS AFFECTED IN 1894.

[Persons affected means persons thrown out of work.]

Division.	Total strikes and lockouts.	Strikes and lockouts for which persons affected were reported.	
		Number.	Persons affected.
England	747	704	168,114
Wales	73	66	18,380
Scotland	189	176	130,167
Ireland	52	51	7,284
Total	1,061	997	324,245

The causes or objects of the strikes and lockouts, and whether successful or otherwise, and the number of persons affected are shown in the following statements:

RESULTS OF STRIKES AND LOCKOUTS, BY CAUSES, IN 1894.

Cause or object.	Succeeded.	Succeeded partly.	Failed.	Not reported.	Total.
Wages	182	161	190	31	564
Hours of labor	6	3	12	2	23
Working arrangements	79	50	79	11	219
Class disputes	29	8	25	3	65
Unionism	37	6	28	3	74
Other causes or objects	39	16	55	4	114
Cause not known	.....	.....	.....	2	2
Total	372	244	389	56	1,061

PERSONS AFFECTED BY STRIKES AND LOCKOUTS, BY CAUSES AND RESULTS, IN 1894.

[Persons affected means persons thrown out of work.]

Cause or object.	Succeeded.		Succeeded partly.		Failed.		Not reported.		Total.	
	Strikes and lockouts.	Persons affected.	Strikes and lockouts.	Persons affected.	Strikes and lockouts.	Persons affected.	Strikes and lockouts.	Persons affected.	Strikes and lockouts.	Persons affected.
Wages	175	31,150	156	93,531	178	107,112	17	3,110	526	234,903
Hours of labor	6	2,650	2	1,560	12	1,895	.....	.....	20	6,105
Working arrangements	78	15,042	47	9,137	77	12,128	5	1,456	207	37,763
Class disputes	27	1,612	8	813	24	1,248	2	26	61	3,699
Unionism	36	12,570	5	705	28	2,202	2	42	71	15,519
Other causes or objects	38	8,637	16	5,332	54	11,788	4	499	112	26,256
Total	360	71,661	234	111,078	373	136,373	30	5,133	997	324,245

The number of persons thrown out of employment during 1894 is shown for 997 strikes and lockouts; the remaining 64 are known to have been insignificant. Of the 324,245 persons thrown out of employment, 257,937 were directly engaged in the disputes and 66,308 were indirectly engaged. The number of persons affected was less by 312,141 than the number reported affected for 1893, and the average number per dispute was 306, as compared with 814 in 1893. The average duration in working days was 24.6, as compared with 28 days in 1893.

The information concerning the strikes and lockouts for which the number of persons affected and the working days lost were reported is summarized in the following statement. The total number of persons affected is also shown. The strikes and lockouts are grouped according to the number of persons affected.

WORKING DAYS LOST AND PERSONS AFFECTED BY STRIKES AND LOCKOUTS IN 1894.

[Persons affected means persons thrown out of work.]

Groups.	Strikes and lockouts for which both persons affected and working days lost were reported.				Strikes and lockouts for which persons affected were reported.	
	Number.	Persons affected.	Working days lost.		Number.	Persons affected.
			Number.	Average per person affected.		
5,000 persons and upward	4	118,000	5,995,000	50.8	4	118,000
1,000 to 5,000 persons	48	80,133	910,329	11.4	49	81,133
500 to 1,000 persons	59	40,598	378,231	9.3	59	40,598
100 to 500 persons	276	61,152	1,632,486	26.7	297	65,811
Under 100 persons	490	16,160	406,050	25.1	588	18,703
Total	877	316,043	9,322,096	29.5	997	324,245

In the following statement the strikes and lockouts are grouped according to the method of settlement:

METHOD OF SETTLEMENT OF STRIKES AND LOCKOUTS IN 1894.

[Disputes settled by a combination of two or more of the methods enumerated have been classed under the most important one. Disputes settled partly by arbitration and partly by other methods are classed under arbitration. Persons affected means persons thrown out of work.]

Method of settlement.	Total strikes and lockouts.	Strikes and lockouts for which persons affected were reported.	
		Number.	Persons affected.
Negotiation or conciliation between the parties	607	583	144,125
Mediation or conciliation by third parties	18	18	8,399
Arbitration	32	32	10,785
Submission of work people	170	162	147,044
Replacement of hands	159	155	6,451
Closing of works or establishments	13	11	985
Withdrawal or disappearance of cause without mutual agreement	6	6	1,323
Indefinite, or no information	56	30	5,133
Total	1,061	997	324,245

Although the largest number of disputes during the year were settled by negotiation between the parties or by some other conciliatory method, the largest proportion of work people affected had their disputes terminated by submission.

The settlement of disputes by conciliation and arbitration is treated separately. The modes of settlement considered under this head are only those in which an independent individual or permanent body intervened or took part. Settlements due to the mediation of a trade union or trades council on the one side or association of employers or chamber of commerce on the other are not considered in this connection.

Including disputes which began in 1893 and were referred to arbitration or settlement by conciliation in 1894, but excluding those com-

menced in 1894 and referred to settlement in 1895, there were 42, affecting 18,325 persons, as compared with 25 in 1893, affecting 312,009 persons. The decrease in the number affected is explained by the fact that in 1893 the greatest dispute of the year, viz, that in the coal trade, involved no less than 300,000 persons. This dispute was settled by the mediation of Lord Rosebery.

In the following statement the strikes and lockouts settled by conciliation and arbitration are classified according to the agency employed in their settlement:

STRIKES AND LOCKOUTS SETTLED BY CONCILIATION AND ARBITRATION IN 1894.

[Persons affected means persons thrown out of work.]

Agency employed.	Conciliation.		Arbitration.		Total.	
	Strikes and lockouts.	Persons affected.	Strikes and lockouts.	Persons affected.	Strikes and lockouts.	Persons affected.
Trade boards	7	2,572	3	2,957	10	5,529
Individuals	11	2,799	16	9,187	27	11,986
Trades councils and federations of trade unions (disputes between groups of work people)	1	312	4	498	5	810
Total	19	5,683	23	12,642	42	18,325

It is not to be supposed that permanent boards of conciliation and arbitration are ineffective because so few disputes were settled by them. The greater part of their work consisted in dealing with questions, any or all of which might, if unsettled, have terminated in strikes. Their work, in fact, is rather preventive than remedial.

In all 64 trade boards are believed to have existed in 1894. Ten of these boards dealt with no questions during the year. The number of cases reported as dealt with by the remaining 54 (*a*) boards was 1,733, of which 368 were withdrawn by one or both of the parties, or referred back or ruled out of order by the boards. Thus, 1,365 cases were settled in 1894, as compared with 1,228 in 1893. Of these 1,365 the boards settled 1,142, the remaining 223 being referred to arbitrators by the boards or settled by independent chairmen of the boards.

Out of 22 district boards believed to have been in existence during the year, only 7 are known to have offered their services in any dispute, and only 3 actually dealt with any questions.

The loss to employers and work people caused by strikes and lockouts is shown by statistics taken from the returns received from employers and trade unions.

a In the case of 6 of these boards no information was reported; in the case of 2 only the principal questions dealt with were reported.

The information contained in the following summary was taken from the returns received from employers:

COST OF STRIKES AND LOCKOUTS IN 1894, AS REPORTED BY EMPLOYERS.

Items.	Amount.	Strikes and lockouts.	Persons affected.
Estimated value of fixed capital laid idle	$43,286,603	193	65,306
Estimated value of capital where number of persons is not known	2,136,783	2	.....
Estimated annual ratable value of property laid idle	1,243,761	129	36,894
Estimated actual outlay by employers in stopping and reopening works, and in payment of fixed charges, salaries, etc	632,664	160	58,597
Estimated actual outlay in cases where number of persons is not known	50,952	3	.....
Amount paid in defense against strikes or in support of lockouts by organizations of employers	7,835	12	3,608

Compiled from partial returns, the trade unions reported $233,529 as expended during 1894 from trade-union funds in support of strikes or defense against lockouts in 329 disputes involving 35,946 persons. For 5 of these disputes, however, the persons involved were not reported. The amount expended in this manner from funds other than those of trade unions is reported as $33,944 for 142 disputes involving 21,665 persons.

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, will be continued in successive issues, dealing with the decisions as they occur. All material parts of the decisions are reproduced in the words of the courts, indicated, when short, by quotation marks, and when long by being printed solid. In order to save space immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—*Culver v. Alabama R. R. Co. 18 Southern Reporter, page 827.*—Section 2590 of the Code of Alabama provides that "when a personal injury is received by a servant or employee in the service or business of the master or employer, the master or employer is liable to answer in damages to such servant or employee as if he were a stranger, and not engaged in such service or employment, in the cases following:

* * * * * * *

"5. When such injury is caused by reason of the negligence of any person in the service or employment of the master or employer, who has the charge or control of any signal, points, locomotive, engine, switch, car, or train upon a railway, or of any part of the track of a railway."

Under the above provision suit was brought against the Alabama Midland Railway Company by Levin L. Culver as administrator of Virgil Mowdy, deceased, to recover damages for injuries sustained by Mowdy, which resulted in his death, caused by the alleged negligence of an engineer in charge of a locomotive. Judgment was given by the circuit court of Dale County, Ala., for the railroad company, whereupon Culver appealed to the supreme court, which reversed the judgment of the circuit court and remanded the case by decision rendered December 19, 1895.

In delivering the opinion of the supreme court Judge Coleman said:

The employer is liable for an injury inflicted upon an employee by the negligence of a coemployee when such negligence comes within the provisions of the employer's act [section 2590, Code of Alabama], and that without reference to the care and diligence used by the employer in the selection of his servants or employees. The employer's act in no wise relieves the employer from the duty of selecting with reasonable care his servant. The act imposes a further liability, and makes him responsible for injuries sustained by an employee in consequence of any neglect by the employer or his servants, specified in the act itself.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—*Leier v. Minnesota Belt Line and Transfer Co. 65 Northwestern Reporter, page 269.*—In this case the allegations of the complaint of the plaintiff were to the effect that he had been employed in the defendant's stock yards and that, when a stock train arrived, his duty was to step from a high platform up on top of the cars as they drew up opposite the platform and pull bundles of hay from the platform up on the top of the cars; that the conductor of the train negligently ordered him to step from the platform up on the top of a passing car while it was going at too great a rate of speed to enable him to do so with safety, a fact which was unknown to him, and that owing to the dangerous rate of speed of the car, he, while stepping upon it, was thrown to the ground and his arm run over by the wheels of a car.

From an order by the district court of Hennepin County, Minn., overruling the defendant's demurrer to Leier's complaint, appeal was taken to the supreme court of the State, which tribunal, on December 13, 1895, sustained the action of the district court, and decided that, according to the complaint, the plaintiff was injured by reason of exposure to hazards peculiar to the operation of railroads, and that the case was within the purview of section 2701 of the General Statutes of 1894 of Minnesota, making railroad companies liable to their servants for injuries caused by the negligence of their fellow-servants.

The opinion of the supreme court was delivered by Judge Mitchell, who, after summarizing the allegations of the complaint, said:

We think the fair construction of these allegations is: First, that it was usual and customary for defendant's servants to do this work under the directions of the conductor, and, hence, that in giving such instructions the conductor was acting within the scope of his duty; second, that the conductor knew, or, in the exercise of ordinary care, ought to have known, that the car was moving too fast for the plaintiff to step upon it without exposing himself to great danger of personal injury. If this was so, then the conductor was guilty of negligence in giving the order. It does not appear—certainly not conclusively—from the allegations of the complaint that defendant [plaintiff] was guilty of negligence in obeying the order. It must be remembered that contributory negligence is a matter of defense and that a plaintiff is not required to negative it in his complaint. In doing the work which he was doing, in getting upon a moving car, plaintiff was exposed to an element of hazard or condition of danger which is peculiar to railroad business, and, as this element of danger caused or contributed to his injury, the statute (Gen. St. 1894, Sec. 2701) applies, and the railway company would be liable if the injury was caused by the negligence of a fellow-servant.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—*Pennsylvania Co. v. McCann. 42 Northeastern Reporter, page 768.*—The following are the facts in this case: McCann, who was a brakeman in the service of the Pennsylvania Railroad Company, in attempting, in the State of Penn-

sylvania, to board one of its moving cars, put his foot in a stirrup that was suspended from the sill of the car and used as a step in mounting the car. The stirrup yielded to the pressure of his foot, causing him to be thrown under the car, whereby a wheel of the locomotive, which was backing, ran over one of his legs, inflicting the injury of which he complained. The railroad company was operating a line running from Youngstown, in Ohio, to a point in the State of Pennsylvania. Suit was brought against the railroad company in the court of common pleas in the State of Ohio. After the evidence had been presented for McCann the attorneys for the railroad company moved the court to take the case from the jury and to render a judgment in their favor, which was done. McCann then carried the cause to the circuit court in Mahoning County, Ohio. The circuit court reversed the judgment rendered in the court below on the sole ground that the act of April 2, 1890 (87 Ohio Laws, p. 149), was applicable, by force of which the fact that the stirrup was defective made a prima facie case of negligence against the railroad company.

The railroad company then brought the case on error to the supreme court of Ohio, which court on January 21, 1896, gave its decision affirming the judgment of the circuit court. From the opinion of the court, read by Judge Bradbury, the following is quoted:

The only question arising upon the record of sufficient importance to be worthy of extended consideration is whether the act of general assembly of this State, passed April 2, 1890 (87 Ohio Laws, p. 149), is applicable to the case or not, the injury complained of having been sustained beyond the limits of this State. The second section of the act in question prescribes the effect that shall be given to evidence which establishes a defect in the locomotives, cars, machinery, or attachments of certain railroads, in actions for injuries to its [their] employees, caused by such defects, and declares that, when such defects are made to appear, the same shall be prima facie evidence of negligence. There can be no doubt respecting the general power of a State to prescribe the rules of evidence which shall be observed by its judicial tribunals. It is a matter concerning its internal policy, over which its legislative department necessarily has authority, limited only by the constitutional guaranties respecting due process of law, vested rights, and the inviolability of contracts. The rules of evidence pertain to the remedy, and usually are the same, whether the cause of action in which they are applied arises within or without the State whose tribunal is investigating the facts in contention between the parties before it. Nor is it material, in this respect, whether the parties are residents or nonresidents of the State. The law of evidence, in its ordinary operation, is no more affected by one of these considerations than the other. No extraterritorial effect is given to a statute creating a rule of evidence by the fact that the rule is applied to the trial of a cause of action arising in another State, or to the trial of an action between parties who are nonresidents. If the tribunal of a State obtains jurisdiction of the parties and the cause, it will conduct the investigation of the facts in controversy between them according to its own rules of evidence, which is simply to follow its own laws within its own borders. The second section [of the act in question], in

forbidding the use of defective cars and locomotives by railroad companies, refers to them as "such corporations," manifestly including every corporation owning or operating a railroad any part of which extends into this State.

Here, again, the prohibitive language employed is broad enough to include acts or conduct occurring in other States. In the subsequent clause of the second section of the act, wherein the general assembly sought to prescribe the rule of evidence, before referred to, applicable to the trial of actions in the courts of this State brought by employees of railroad companies on account of injuries sustained by reason of defective cars, locomotives, machinery, or attachments, it approached the question of procedure in our judicial tribunals, over which, as we have seen, the authority of the general assembly is practically supreme. This clause of the statute is purely remedial, and should receive a liberal construction. The language employed by the act in this connection is consistent with a legislative purpose to extend the remedy to all actions of the character named in the act against all railroad companies, and no sufficient reason has been assigned for limiting its operation to causes of action that arose within the State. Indeed, it would be somewhat anomalous to prescribe to the courts of the State rules of evidence depending upon the question whether the cause of action arose within or without the State; and an intent to create this distinction should not be imputed to the legislative power unless it is fairly inferable from the language it has used. That language is as follows: "And when the fact of such defect shall be made to appear in the trial of any action in the courts of this State brought by such employee or his legal representatives against any railroad corporation for damages on account of such injuries so received the same shall be prima facie evidence of negligence on the part of such corporations." This language contains nothing indicating a purpose to confine the rule of evidence it creates to causes of action that should arise in this State. On the contrary, it expressly extends the rule to "any action in the courts of this State brought by such employee * * * against any railroad corporation." In fact the language is comprehensive enough to apply the rule to a railroad company, in this class of actions, whether any part of its line extended into Ohio or not; and if the courts of our State should acquire jurisdiction over the person of a railroad company whose line lay wholly without the State, no reason is perceived why the rule should not be applied. Judgment affirmed.

THE FELLOW-SERVANT ACT OF TEXAS--*San Antonio and Aransas Pass R. R. Co. v. Harding et al. 33 Southwestern Reporter, page 373.*—In the district court of Harris County, Tex., judgment was rendered awarding $16,000 damages against the San Antonio and Aransas Pass Railway Company in favor of Laura Harding and others, the widow and minor children of Edward Harding, who was killed in a collision between the engine in which Harding was engineer and another engine used in switching in the company's yard at Waco, Tex. The case was carried, on appeal by the company, to the court of civil appeals, which tribunal affirmed the judgment of the district court by decision rendered November 28, 1895.

The circumstances under which Harding was killed were as follows: Deceased was an engineer, in the service of the company, in charge of a train going from Yoakum to Waco, and was under the control of the train master at Yoakum. In the company's yard at Waco was a regular yard crew, consisting of a night yard-master or foreman, a yard engineer or "hostler," a fireman, and other employees, and these were engaged in switching cars in the yard with engine No. 53. This yard crew was under the immediate supervision of one Hall, the foreman, who had no control over Harding. When engine No. 53 was taken to the yard to be used in switching cars its lamp was in a defective and leaking condition and was found empty. It was refilled and relighted by the yard engineer and fireman, who, it seems, had not been notified of its defective condition. The evidence was sufficient to show that when Harding arrived in sight the defective lamp had gone out, and nothing was done to give Harding notice of the switching engine's presence on the track upon which he was approaching, or to prevent a collision, except that when he had approached so close that he had not time to stop and avoid the danger, the yard engineer gave him a signal with his lantern to stop, and then endeavored to back the switch engine out of the way, but was prevented from doing so by the number of cars already occupying the side tracks. Deceased failed to discover the switching engine because of the absence of the headlight and received no other sufficient warning. A collision ensued, which resulted in his death.

In delivering the opinion of the court of civil appeals, Judge Williams said:

As negligence of the defendant in failing to exercise proper care to see that the headlight was in good condition was one of the causes contributing to the death of Harding, defendant is liable, even if it were true that the negligence of employees who were fellow-servants of the deceased also contributed. There can be little doubt that, if the headlight had been kept in proper condition, it would have continued to burn, and would have notified Harding of the presence of the switch engine in time to have enabled him to avoid danger. No other cause for the extinguishment of the light is suggested by the evidence but that the oil had leaked out and that none remained to feed the light. The company is responsible for the omissions of servants, to whom it left the performance of the duty of seeing after the condition of the lamp.

Under our fellow-servants' act the employees working with the switch engine were not the fellow-servants of Harding. (Laws of 1893, p. 120.) The employees in the yard, under the supervision and control of the yard master, were in a different department from engineers running trains on the road, under the supervision and control of the train master at another place. It is contended that the two engineers were in the common service of the company, were in the same department, were of the same grade, and were working together at the same time and place, and to a common purpose, and, therefore, come within the definition of "fellow-servants" as given in the statute. If this were conceded, we do not think it could relieve appellant, even if no negligence but

that of its servants were shown, because the collision can not be said to have resulted from the negligence of the yard engineer alone. If he was guilty of negligence, the foreman was also guilty, and the fact that the negligence of a fellow servant merely contributes to the injury does not relieve the company, if its own neglience, or that of its employees who are not fellow-servants with the injured employee, also contributes. But we are not prepared to concede that the "hostler" was a fellow-servant under the statute. In a sense, as stated by one of the witnesses, the two engineers were in the same department, the "motive power department," but this has reference to the divisions of its service into branches made by the company. Under its regulations servants may be in the same department as named by it, and yet in different departments as intended by the statute. Such questions must be determined by the relations which the employees actually bear to each other, and not by the mere names that are given by the company to the different branches of the service.

Nor do we think that the engineers were in the meaning of the statute, "in the common service," or that they were "working together to a common purpose." Their superiors, to whose authority they were subjected, were vice principals of the corporation, and stood to the servants under their control in the relation of master. This the statute expressly declares, and this provision, we think, enables us to determine what is meant by the words "departments," "common service," and "common purpose." As pointed out in the Ross case (112 U. S., 389; 5 Sup. Ct., 184), there is a line of decisions holding that employees are in the same department, and in a common employment, only when they are subject to the same immediate supervision and control. This view had not generally prevailed, and was not adopted by the courts in this State, and it seems to us, from the whole of the statute, that it was intended to substantially adopt it. The servant having control of others is first declared to stand in the relation of master to those under him, and then, in defining the relation of other employees to each other, it is provided that, in order to be fellow-servants, they must be in the common service, in the same department, of the same grade, working together at the same time and place, and to a common purpose. The servants subjected to the control of different supervisors are thus treated as being in separate departments and different service. When we consider that many authorities, including some of the later opinions of our supreme court, had expressed the view that sound reason for the existence of the rule as to fellow-servants could only be found in cases where the employees were so situated with reference to each other as to be enabled to exercise over the conduct of each other that watchfulness regarded as essential to the efficiency of the service and the safety of the public, we see that the legislature has adopted that view, and intended to enforce it, in the provisions referred to. Under our construction of the statute, none of the employees in the Waco yard were fellow-servants with Harding, unless indeed, in the performance of his duties, he became temporarily subject, while operating in the yard, to the supervision of the yard foreman. Then he might be considered for the time a fellow-servant with the others, subject to the same authority, but not with the foreman himself.

The court, in its charge, gave to the jury all of the provisions of the statute, leaving them only to apply the evidence. Contention is made that the rule applicable when one servant is intrusted with control of others should not have been given, because there was no evidence to support it. As before noted, there was evidence tending to show that

engineers, while in the yards, were subject to the control of the yard master, and, if for no other reason than to prevent confusion in the minds of the jury, it was not improper for the court to tell them that, even in that view, Harding could not be a fellow-servant with the yard master. We think it evident that Harding on the occasion in question, never became subject to the authority of the yard master, but it could have done no harm for the court to inform the jury that, if he did, they were not fellow-servants. If we are correct in our view that none of the employees in the yard were fellow-servants of the deceased, then, even if the court committed error in defining those who might be fellow-servants, it is immaterial.

While this verdict is large, and may be for a greater amount than this court would allow if trying the case, it is not so clearly excessive as to authorize us to disregard the opinion of the jury and of the court below. In refusing to reverse such verdicts, we are not to be understood as approving them, but simply as adhering to the rules governing appellate courts in such matters.

CHINESE EXCLUSION ACTS—*United States v. Wong Hong. 71 Federal Reporter, page 283.*—The facts in this case are as follows: Prior and up to November 9, 1893, the defendant had resided continuously in the State of California for a period ot sixteen years. On said date he departed for China and did not return until May 27, 1895. For a period of seven years preceding and up to August 1, 1893, the defendant was a merchant as defined by act of Congress passed November 3, 1893, being chapter 14 of the first (extra) session of the Fifty-third Congress. On August 1, 1893, his store was destroyed by fire. About six weeks or two months after the fire another store was built on the same lot where the original store stood. The firm of Duey Lee & Co. opened business in this new store two weeks or more before the defendant left for China. Defendant was a member of this firm and put $800 into the business. After the fire and up to his departure for China the defendant devoted himself to the business. After his return from China and up to the time of his arrest he stayed in the store and aided in the transaction of its business and retained his interest in the firm continuously up to the rendering of the decision in this case. The defendant was charged with being a Chinese laborer unlawfully within the United States. The case was heard in the district court for the southern district of California, and on December 2, 1895, the decision was given by Judge Wellborn. In the course of his opinion the following language was used:

The defendant's right to be in the United States must depend upon his having been a merchant at the time of his departure therefrom, November 9, 1893. If at that time he was a laborer, his return to the United States was in contravention of the act of October 1, 1888 (chapter 1015, acts of 1887–88), and unlawful. The defendant, having departed from the country in 1893, can not now be lawfully here, unless the facts sustain his contention that he was a merchant at the time of such departure. The act of November 3, 1893 (chapter 14, acts of 1893,

extra session), provides as follows: "The term 'merchant,' as employed herein and in the acts of which this is amendatory, shall have the following meaning and none other: A merchant is a person engaged in buying and selling merchandise, at a fixed place of business, which business is conducted in his name, and who during the time he claims to be engaged as a merchant, does not engage in the performance of any manual labor except such as is necessary in the conduct of his business as such merchant." An analysis of this provision shows that, in order to constitute a person a merchant, four things are necessary: First, such person must be engaged in buying and selling merchandise; second, he must be engaged at a fixed place of business; third, said business must be conducted in his name; fourth, he must not, during the time he claims to be engaged as a merchant engage in the performance of any manual labor, except such as is necessary in the conduct of his business as such merchant. With reference to these constituents, it is only necessary to say, that the defendant has not only failed to establish the third constituent, but the evidence shows its nonexistence. The evidence is uncontradicted and positive to the effect that the firm name was Duey Lee & Co., and there is not a particle of evidence that the defendant's name appeared in any way in the conduct of said business. It is impossible, therefore, to hold in this case that the defendant is a merchant, without an utter disregard of the act of Congress above mentioned. The circuit court of appeals of this circuit has decided that, in order to constitute a person a merchant within the meaning of said act, it is not necessary that his name appear in the firm designation, but it is sufficient if his interest be real and appear in the business and partnership articles in his own name. In the present case there is no proof that the defendant's name appeared in the partnership articles or elsewhere in the business, while the proof is positive that the business subsequent to August 1, 1893, was not conducted in the defendant's name. My conclusion is that the defendant, Wong Hong, is a Chinese laborer, and unlawfully within the jurisdiction of the United States, and the judgment of the court will be that the said defendant, Wong Hong, be removed from the United States to China.

CONSTITUTIONALITY OF LAW REQUIRING BLOWERS FOR EMERY WHEELS—*People v. Smith. 66 Northwestern Reporter, page 382.*—Act No. 136 of the session laws of Michigan of 1887, now sections 1690z1, 1690z2, and 1690z3 of the third volume of Howell's Annotated Statutes, as amended by act No. 111 of the session laws of 1893, reads as follows:

SECTION 1. All persons, companies, or corporations, operating any factory or workshop where emery wheels or emery belts of any description are used, either solid emery, leather, leather covered, felt, canvas, linen, paper, cotton, or wheels or belts rolled or coated with emery or corundum, or cotton wheels used as buffs, shall provide the same with blowers, or similar apparatus, which shall be placed over, beside or under such wheels or belts in such a manner as to protect the person or persons using the same from the particles of dust produced and caused thereby, and to carry away the dust arising from, or thrown off by such wheels or belts while in operation, directly to the outside of the building or to some receptacle placed so as to receive and confine such dust: *Provided*, That grinding machines upon which water is

used at the point of the grinding contact shall be exempt from the conditions of this act.

SEC. 2. Any such person or persons and the managers or directors of any such corporation who shall have [the] charge or management of such factory or workshop, who shall fail to comply with the provisions of this act, shall be deemed guilty of a misdemeanor, and upon a conviction thereof before any court of competent jurisdiction shall be punished by a fine not less than twenty-five dollars and not exceeding one hundred dollars, or imprisonment in the county jail not less than thirty days or exceeding ninety days, or both such fine and imprisonment in the discretion of the court.

SEC. 3. Nothing in this act shall apply to factories, sawmills, shingle mills, and workshops in which such wheels or belts are occasionally used and only by men not especially employed for that purpose.

Joseph N. Smith was convicted of a violation of this act and appealed to the supreme court of Michigan from judgment on a writ of certiorari from the justice's court in Detroit rendered in the circuit court of Wayne County. The supreme court rendered its decision March 3, 1896, sustaining the constitutionality of the act and affirming the judgment of the court below. The following is quoted from the opinion of the supreme court, delivered by Judge Hooker:

Counsel for the defendant assert that they care to raise but one question, viz, the constitutionality of this law. It is not disputed that the State may regulate the use of private property, when the health, morals, or welfare of the public demands it. Such laws have their origin in necessity.

Counsel say that this law is invalid because it does not apply to all, not even to all who have emery wheels, because some may use with water, and others may not work continuously. For the purposes of this case, it may be said that all persons who are given continuous employment over dry emery wheels are within the provisions of this act. This singles out no class, as it applies to all persons who use emery wheels in that manner. Necessarily the practical application is limited to those who engage in such business, but such is the case with many laws. All criminal laws apply only to those who choose to break them. This law applies to all who choose to use the emery wheel.

The legislature has seen fit to permit certain uses of the dry wheel without a blower, while in other cases it is required. This is competent, and is not class legislation as between operatives. It fixes the limits of use without a blower, and requires it after such limits are passed; but the rules apply to all.

The vital question in this case is the right of the State to require the employer to provide, and the employee to use, appliances intended for the protection of the latter. Laws of this class embrace provisions for the safety and welfare of those whom necessity may compel to submit to existing conditions involving hazards which they would otherwise be unwilling to assume. Among them are provisions for fire escapes, the covering or otherwise rendering machinery safe, the condition of buildings, ventilation, etc. In the main, where the necessity is obvious, they commend themselves to those who have at heart the welfare of their fellows, and should be upheld if they do not contravene private rights. The constitution secures to the citizen the rights of life, liberty, and private property, and, as the only value in the latter consists in its use, it follows that the right to use private prope

extra session), provides [illegible] doubt that the use herein and in the acts of [illegible] one would think of lowing meaning and [illegible] manufacture, use, and buying and selling merch[illegible] signed to insure safety business is conducted in [illegible] escapes upon hotels, to be engaged as a merch[illegible] which the public are any manual labor except [illegible] exercise of the police business as such merchant [illegible] and that they are necessin order to constitute a p[illegible] populace, but such per- First, such person must [illegible] a position requiring such second, he must be eng[illegible] business must be condu[illegible] which threaten conta- the time he claims to be [illegible] quarantine is required,—the ance of any manual labo[illegible] laws are obvious. But at of his business as such [illegible] there there is no direct danger ents, it is only necessary [illegible] sought to be regulated, and to establish the third [illegible] ence. The evidence i[illegible] the public welfare nor health the firm name was [illegible] sought to be afforded is limited evidence that the d[illegible] contract of employment, signi- duct of said business [illegible] its dangerous condition, and that the defendant [illegible] act of Congress abo[illegible] provide inferior and even dan- circuit has decided [illegible] and enterprises more or less within the meaning [illegible] Men may contract to use such in the firm designe[illegible] service, and have no remedy if appear in the bus[illegible] the police power is limited by such the present case [illegible] in the partnership [illegible] the contract may cut off legal is positive that [illegible] are not satisfied that the authority conducted in th[illegible] of those who do not sustain ant, Wong Ho[illegible] In the absence of a law requiring diction of the [illegible] building, and is injured may be that the said [illegible] to his employment, but we know States to Chin[illegible] from making a regulation requir- [illegible] buildings, though the only object [illegible] who are under contract to work [illegible] Fire escapes in hotels and [illegible] halls are required by law for the [illegible] virtue of contract relations with [illegible] general, and the danger to the [illegible] who are subjected to the dan- [illegible] legislative intervention.

CONSTITU[illegible] WHEELS—[illegible] No. 136 of [illegible] 1690z2, an[illegible] as amende[illegible]

SECTIO[illegible] subject under discussion are here factory [illegible] tion are [illegible] to say: linen, pa[illegible] over the inability of the courts to corundu[illegible] such laws may be tested. Each blowers, [illegible] (1) Is there a threatened dan- under s[illegible] constitutional right? (3) Is the or perso[illegible] case no controversy is raised over caused [illegible] called upon to discuss it. As is by such [illegible] constitutional right to use property the bui[illegible] the public welfare requires its regu- such d[illegible] it, the right must yield to

the public exigency. And it is upon this question of necessity that the third question depends.

All, then, seems to be embraced in the question of necessity. Unless the emery wheel is dangerous to health, there is no necessity, and consequently no power, to regulate it. Unless the blower is a reasonable and proper regulation, it is not a necessary one. Who shall decide the question and by what rule? Shall it be the legislature or the courts? And, if the latter, is it to be determined by the evidence in the case that happens to be the first brought, or by some other rule? Does it become a question of fact to be submitted to the jury or decided by the court?

There is a manifest absurdity in allowing any tribunal, either court or jury, to determine from the testimony in the case the question of the constitutionality of the law. Whether this law invades the rights of all the persons using emery wheels in the State is a serious question. If it is a necessary regulation, the law should be sustained, but, if an unjust law, it should be annulled. The first case presented might show, by the opinions of many witnesses, that the use of the dry emery wheel is almost necessarily fatal to the operative, while the next might show exactly the opposite state of facts. Manifestly, then, the decision could not settle the question for other parties, or the fate of the law would depend upon the character of the case first presented to the court of last resort, which would have no means of ascertaining whether it was a collusive case or not, or whether the weight of evidence was in accord with the truth.

It would seem, then, that the questions of danger and reasonableness must be determined in another way. The legislature, in determining upon the passage of the law, may make investigations which the courts can not. As a rule, the members (collectively) may be expected to acquire more technical and experimental knowledge of such matters than any court can be supposed to possess, both as to the dangers to be guarded against and the means of prevention of injury to be applied; and hence, while under our institutions the validity of laws must be finally passed upon by the courts, all presumptions should be in favor of the validity of legislative action. If the courts find the plain provisions of the constitution violated, or if it can be said that the act is not within the rule of necessity in view of facts of which judicial notice may be taken, then the act must fall; otherwise it should stand. Applying this test, we think the law constitutional, and the judgment is therefore affirmed.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—*Pennsylvania Co. v. Finney. 42 Northeastern Reporter, page 816.*—This action was brought by Michael Finney, administrator, against the Pennsylvania Company to recover damages for the killing of the plaintiff's intestate, Patrick J. Finney, a brakeman in its employ. A judgment was rendered in favor of the plaintiff, and the defendant appealed from the superior court of Allen County, Ind., where the trial was had, to the supreme court of the State. From the evidence it appeared that the decedent was 22 years old and had been in the employ of the defendant for six months as a brakeman on a freight train; that near Columbia City the defendant maintained a water plug so near its track that a person descending a passing car on that side could not avoid it; that decedent was familiar with its location and had passed it almost dail

during his employment; that it was a part of his duty to go to the top of a train while passing through a station; that, after having passed through Columbia City, he walked to the rear of a car, with his back to the plug, while within 200 feet of it, and, without looking around to ascertain the attendant danger, began to descend the car ladder, and was carried against the plug; that he had no orders to descend at that particular time, but attempted to do so of his own volition. In the opinion of the supreme court, delivered by Judge Jordan, January 29, 1896, the following statements are made:

Considered in the light of the law which must control the case at bar, we are of the opinion, under the facts, that the jury was not authorized in finding a verdict in favor of the appellee. Assuming, without deciding, that the appellant was chargeable with actionable negligence in maintaining the water crane in the manner and in the condition shown, still there is an absence of evidence showing freedom from contributory negligence upon the part of the deceased, in the matter of which appellee complains. The rule is settled that the plaintiff, in such a case as this, must affirmatively show, by the evidence, not only negligence upon the part of the master, but freedom therefrom upon the part of the servant. The freedom from fault or negligence upon the part of the latter being under the law an essential element in the cause, which must be found to exist in order to warrant a recovery, a failure to establish the same results in defeating the action; and when the evidence in the record fails to prove this material fact, the judgment, upon appeal to this court, must necessarily be reversed.

After reviewing the facts in the case the court uses the following language:

We may affirm that appellee's decedent did not, under the facts, observe his surroundings, or exert the care required of him under the law; and hence, in the eye of the latter, he was chargeable with contributory negligence, and the allegations in the complaint, to this extent, at least, are not sustained by the evidence. As we have heretofore stated, the accident occurred as the deceased was attempting to descend to the caboose upon his own volition, and not under or by any direction of the appellant. We are unable to discover in this cause any evidence in the record from which a reasonable inference can fairly arise that appellee's decedent was in the exercise of due and ordinary care at the time of the fatal accident. The jury was not authorized, arbitrarily, without evidence, to infer the absence of contributory negligence upon the part of the deceased servant. The judgment is reversed and the cause is remanded, with instructions to the lower court to sustain the motion for a new trial.

DECISIONS UNDER COMMON LAW.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—*Central R. R. Co. of New Jersey v. Keegan. 16 Supreme Court Reporter, page 269.*—In an action brought by one Keegan against the Central Railroad Company of New Jersey judgment was rendered in favor of Keegan upon the verdict of a jury awarding him damages for injuries sustained by him while acting as brakeman in the employ of the railroad company, the injuries having been caused by the negligence of one O'Brien, who was

foreman of a drill crew, of which Keegan was a member, which was employed in the company's yard at Jersey City, N. J., in taking cars from the tracks on which they had been left by incoming trains and placing them upon floats by which they were transported across the North river to the city of New York. The negligence of the foreman, resulting in the injury to Keegan, consisted in his failure to place himself or some one else at the brake of certain backwardly-moving cars, so that there was no one to check their motion by applying the brakes, in consequence of which the rear wheel passed over Keegan's leg, who, while in the performance of his dut , had caught his right foot in the guard rail of a switch, and was thereby prevented from moving out of the way of the cars.

The case was carried by the railroad company to the United States circuit court of appeals for the second circuit, where two judges, sitting as the court, differed in opinion upon questions of law, and certified the two following questions to the Supreme Court of the United States for instructions, to enable them to render a proper decision: "(1) Whether the defendant in error [Keegan] and O'Brien were or were not fellow-servants; and (2) whether, from negligence of O'Brien in failing to place himself or some one else at the brake of the backwardly-moving cars, the plaintiff in error, the railroad company, is responsible."

The United States Supreme Court, through Mr. Justice White, decided, December 23, 1895, that Keegan and O'Brien were fellow-servants and that the railroad company was not responsible for the injuries sustained by the former through the negligence of the latter; but Mr. Chief Justice Fuller, Mr. Justice Field, and Mr. Justice Harlan dissented.

The following extract is made from the opinion in the case:

We held in Railroad Co. *v.* Baugh (149 U. S., 368; 13 Sup. Ct., 914) that an engineer and fireman of a locomotive engine running alone on a railroad, without any train attached, when engaged on such duty, were fellow-servants of the railroad company; hence, that the fireman was precluded from securing damages from the company for injuries caused, during the running, by the negligence of the engineer. In that case it was declared that: "Prima facie, all who enter the employment of a single master are engaged in a common service, and are fellow-servants. * * * All enter in the service of the same master to further his interests in the one enterprise." And while we in that case recognized that the heads of separate and distinct departments of a diversified business may, under certain circumstances, be considered, with respect to employees under them, vice principals or representatives of the master, as fully and completely as if the entire business of the master was by him placed under the charge of one superintendent, we declined to affirm that each separate piece of work was a distinct department, and made the one having control of that piece of work a vice principal or representative of the master. It was further declared that "the danger from the negligence of one specially in charge of the particular work was as obvious and as great as from that of those who were simply coworkers with him upon it. Each is equally with the other an ordinary risk of the employment," which the employee assumes

whether defendant is charged with any liability for defects in materials, for the evidence makes it clear that the fall of the scaffold was due, not to defects in the material, but to defective construction. It affirmatively appears that defendant personally took no part in its construction, but that it was constructed by the masons, in accordance with the custom of the trade. As the error of construction which occasioned the plaintiff's injury was committed by workmen with whom he was working in a common employment, subject to a common danger which all equally knew must result from a negligent construction of the scaffold, the rule which denies the liability of the master for injury received from the negligence of a fellow-servant was plainly applicable. As there was no evidence that defendant was negligent in the selection and employment of the masons engaged in the work, there was no evidence of defendant's liability sufficient to be submitted to a jury. For these reasons I think the rule should be made absolute.

EMPLOYERS' LIABILITY—VICE PRINCIPAL—*Carlson v. Northwestern Telegraph Exchange Co. 65 Northwestern Reporter, page 914.*—This case was brought before the supreme court of Minnesota on an appeal from the district court of Hennepin County. Suit had been brought in the district court to recover damages for personal injuries sustained by the plaintiff by reason of the defendant's negligence. Verdict was rendered for the plaintiff, and the defendant appealed from an order denying its motion for a new trial. January 20, 1896, the supreme court gave its decision, affirming the order of the court below. The evidence showed that the plaintiff, with some eighty other laborers employed by the defendant, a corporation, was engaged on August 3, 1893, in the work of excavating a ditch in which telephone wires were to be laid. The work of making this ditch was in charge of a foreman of the name of Purvey, who had control of the work and of all the men engaged thereon, with power to employ and discharge them, and to direct them what to do and where to work. He was the supreme authority there present, and all of the men were subject to his orders in every particular and no one present had any authority over him. A curbing had been put in to hold the side of the ditch in place, but it was insufficient for the purpose, and the complaint alleged that the defendant knew that the walls of the ditch were unsafe and were liable to cave in and injure persons there working. The plaintiff had no knowledge of the condition of the ditch at the point where the curbing was placed. When it was completed, he was ordered by the foreman to go into the ditch and clean out the loose sand at the bottom. He obeyed the order and commenced the work as directed, when a piece of earth, constituting the side of the ditch, settled down under the curbing into the bottom of the ditch, catching the plaintiff and breaking his foot and ankle. The foreman did not caution or advise the plaintiff as to the unsafe condition of the ditch at the place he was ordered

into. The following is the essential part of the opinion of the court, which was delivered by Chief Justice Start:

This brings us to the important, and practically the only real, question presented by the record for our decision, viz: Was the foreman discharging a duty which rested upon the defendant as master, when, under the particular circumstances and conditions of this case, he ordered the plaintiff into the ditch at the point where the accident occurred?

We answer the question in the affirmative. In the case of Leindvall *v.* Wood (41 Minn., 212) this court had the question under consideration, and as a result of a review of its previous decisions, and upon principle, reached the conclusion: "That it is not the rank of the employee, or his authority over other employees, but the nature of the duty or service which he performs, that is decisive; that whenever a master delegates to another the performance of a duty to his servant which rests upon himself as an absolute duty, he is liable for the manner in which that duty is performed by the middleman whom he has selected as his agent; and to the extent of a discharge of those duties by the middleman, however high or low his rank, or however great or small his authority over other employees, he stands in the place of the master, but as to all other matters he is a mere coservant. It follows that the same person may occupy a dual capacity of vice principal as to some matters and of fellow-servant as to others." We adhere to this conclusion. It is correct in principle, and furnishes a just and rational test for determining whether the act or default of an employee in a given case is that of a fellow-servant or of a vice principal. The decisive test is not the conventional title, grade, or rank given to the employee, but the character of what he is authorized to and does do. Applying the rule to the facts of this case, it is clear upon principle that the foreman, Purvey, in ordering the plaintiff into the ditch at the point of the accident, must be regarded as a vice principal. While the employee assumes for himself the ordinary and obvious dangers of the work or business in which he engages, yet the master is bound to use ordinary care to warn and protect the employee from unusual and unnecessary dangers and risks. If the nature and magnitude of the master's work, whether it be that of construction or otherwise, and the number of men engaged in its execution, are such that the exercise of ordinary care for the safety and protection of the workmen from unusual and unnecessary dangers requires that they be given reasonable orders, and that they be not ordered from one part of the work to another, without warning, into places of unusual danger and risks, which are not obvious to the senses and known to them, but which might be ascertained by the master by a proper inspection, the absolute duty rests upon the master to give such reasonable orders. Considerations of justice and a sound public policy impose this duty upon the master as such, which he can not delegate so as to relieve himself from the consequences of a negligent discharge of it. A workman, when ordered from one part of the work to another, can not be allowed to stop, examine, and experiment for himself, in order to ascertain if the place assigned to him is a safe one; and therefore, in obeying the order, while he assumes obvious and ordinary risks, he has a right to rely upon a faithful discharge of the master's duty to use ordinary care to warn and protect him against unusual dangers. In the present case the foreman, Purvey, was the supreme authority in charge of the work, with power to give all orders directing the places where the employees

should work, and all reasonable and necessary orders to secure their safety, which orders the plaintiff was bound to obey and did obey, and was injured by reason of the negligence of the foreman in knowingly ordering him into a place of unusual danger without warning him of the risks incurred in obeying the order. In giving such order, under the special facts of this case, the foreman represented the master, the defendant.

RAILROAD AID ASSOCIATION—ACCEPTANCE OF BENEFITS—RELEASE OF CLAIM—*Otis v. Pennsylvania Co. 71 Federal Reporter, page 136.*—In this case the United States circuit court, district of Indiana, decided, on January 3, 1896, that where a railroad relief association, composed of associated companies and their employees, is in charge of the companies, who guaranty the obligations, supply the facilities for the business, pay the operating expenses, take charge of and are responsible for the funds, make up deficits in the benefit fund, and supply surgical attendance for injuries received in their service, an employee's agreement, in his voluntary application for membership, that acceptance of benefits from the association for an injury shall release the railroad company from any claim for damages therefor, is not invalid as being against public policy or for want of consideration or mutuality.

The opinion of the court, delivered by District Judge Baker, is as follows:

This is an action by the plaintiff, Eugene V. Otis, for the recovery of damages from the defendant, the Pennsylvania Company, for injuries received by him through the negligence of the defendant in employing and retaining in its service a careless and drunken engineer, with full knowledge of his habits, by whose carelessness the plaintiff sustained serious and permanent injuries, without fault on his part. The defendant has answered in two paragraphs. The first is a general denial. The second sets up matter in confession and avoidance. To this paragraph of answer the plaintiff has interposed a demurrer, and the question for decision is, Does this paragraph of answer set up facts sufficient to constitute a defense? The gist of this paragraph of answer is the payment to and acceptance by the plaintiff of benefits to the amount of $660 from the relief fund of the defendant's "voluntary relief department" on account of the injuries for which the action is brought, in full payment and satisfaction thereof.

It is alleged in the paragraph under consideration that the plaintiff was a member of the relief department mentioned, which is composed of the different corporations forming the lines of the Pennsylvania Company west of Pittsburg, to which such of their employees as voluntarily become members contribute monthly certain agreed amounts. This department has for its object the relief of such employees as become members thereof in cases of sickness or disability from accident, and the relief of their families in case of death, by the payment to them of definite amounts out of a fund "formed by voluntary contributions from employees, contributions, when necessary to make up any deficit, by the several companies respectively, and income or profit derived from investments of the moneys of the fund, and such gifts as may be made for the use of the fund." The associated companies have general

charge of the department, guaranty the full amount of the obligations assumed by them, and for this purpose annually pay into the funds of the department the sum of $30,000 in conformity with established regulations, furnish the necessary facilities for conducting the business of the department, and pay all the operating expenses thereof, amounting annually to the sum of $25,000. The associated companies have charge of the funds, and are responsible for their management and safe-keeping. Employees of the Pennsylvania Company are not required to become members of the relief department, but are at liberty to do so if admitted on their voluntary written application; and may continue their membership by the payment of certain monthly dues, the amount of which depends upon the respective classes to which they may be admitted; and the benefits to which they may become entitled are determined by the class to which they belong. A disabled member is also entitled to surgical attendance at the company's expense, if injured while in its employ. The plaintiff agreed in his application for membership:

"That the acceptance of benefits from the said relief fund for injury or death shall operate as a release of all claim for damages against said company arising from such injury or death which may be made by or through me, and that I or my legal representatives will execute such further instrument as may be necessary formally to evidence such acquittance."

Each company to the contract also agreed in behalf of itself and employees to appropriate its ratable proportion of the joint expense of administration and management, and the entire outlay necessary to make up deficits for benefits to its employees. It is further alleged that the member was a member of the relief department when injured, and that there was paid to him by the defendant through such department, on account of the injuries so received, and in accordance with his application therefor, and in accordance with the certificate of membership so issued to him, and the rules and regulations of the relief department, the sum of $660, being at the rate of $60 per month for eleven months, which he accepted and received as the benefits due to him from the said relief department under his said application and certificate and the rules and regulations of said relief department.

It is strenuously insisted by the learned counsel for the plaintiff that the contract is void, because it is repugnant to sound public policy, and is an attempt by the defendant to exempt itself, by contract, from the consequences of its own negligence; and because the agreement that the payment and acceptance of the benefits should operate to release the company from responsibility for its wrongful act is without consideration, for the reason that the plaintiff, by the payment of his monthly dues, became entitled as a matter of legal right to receive the stipulated benefits as fully as he was entitled to the payment of his monthly wages.

As a general proposition, it is unquestionably true that a railroad company can not relieve itself from responsibility to an employee for an injury resulting from its own negligence by any contract entered into for that purpose before the happening of the injury, and, if the contract under consideration is of that character, it must be held to be invalid. But upon a careful examination it will be seen that it contains no stipulation that the plaintiff should not be at liberty to bring an action for damages in case he sustained an injury through the negligence of the defendant. He still had as perfect a right to sue for his injury as though the contract had never been entered into. Before the contract was entered into, his right of action for an injury resulting

from the defendant's negligence was limited to a suit against it for the recovery of damages therefor. By the contract he was given an election either to receive the benefits stipulated for, or to waive his right to the benefits, and to pursue his remedy at law. He voluntarily agreed that, when an injury happened to him, he would then determine whether he would accept the benefits secured by the contract, or waive them and retain his right of action for damages. He knew, if he accepted the benefits secured to him by the contract, that it would operate to release his right to the other remedy. After the injury happened, two alternative modes were presented to him for obtaining compensation for such injury. With full opportunity to determine which alternative was preferable, he deliberately chose to accept the stipulated benefits. There was nothing illegal or immoral in requiring him so to do. And it is not perceived why the court should relieve him from his election in order to enable him now to pursue his remedy by an action at law, and thus practically to obtain double compensation for his injury. Nor does the fact that the fund was in part formed by his contributions to it alter the case. The defendant also contributed largely to the fund under its agreement to make up deficits, to furnish surgical aid and attendance, to pay expenses of administration and management, and to be responsible for the safe-keeping of the funds of the relief department. It had a large pecuniary interest in the very money which the plaintiff received. We are not concerned with the question whether the plaintiff might not have secured a larger sum of money if he had prosecuted his legal remedy for the recovery of damages for his injury. After the injury, the plaintiff was at liberty to compromise his right of action with the defendant for any valuable consideration, however small; and, if he chose to accept a less amount than that which he might have recovered by action, such settlement, if fairly entered into, constitutes a full accord and satisfaction, from which the court can not, and ought not to, relieve him.

The question of the validity of such a contract as that relied upon in the paragraph of answer under consideration is a new one in this court, but it has been considered by a number of reputable courts in other jurisdictions, and, with a single exception, so far as I am advised, it has been uniformly held that such a contract is not invalid for repugnancy to sound public policy, or for want of consideration, or for want of mutuality. In the views expressed in these cases I entirely concur.

INJUNCTIONS AGAINST LABOR ORGANIZATIONS—*Silver State Council, No. 1, of American Order of Steam Engineers v. Rhodes et al. 43 Pacific Reporter, page 451.*—This case was heard in the district court of Arapahoe County, Colo., the injunction asked for being refused and judgment rendered for the defendants. The plaintiff brought the case on error to the court of appeals of Colorado, and on November 11, 1895, the decision of said court was given, in which the judgment rendered in the court below was affirmed. The facts in the case are sufficiently set out in the opinion of the court delivered by Judge Thomson, which is as follows:

The purpose for which this proceeding was instituted is set forth in the prayer of the complaint, which we quote: "That an injunction issue

out of this honorable court, enjoining, restraining, and prohibiting the above-named defendants, each and all of them, and their said organizations, their servants, agents, and employees, both as individuals and organizations, in any manner interfering with or trying by threats, boycotts, strikes, or intimidations to break up and destroy, or cause the resignation of any member by threats, boycotts, strikes, or intimidations, of Silver State Council, No. 1, American Order of Steam Engineers, plaintiff herein, or by strikes, boycotts, or any other threats to compel it or its members to throw up its certificate, articles, or charter of incorporation or organization, or to in any manner interfere with the rights and privileges of Silver State Council, No. 1, of the American Order of Steam Engineers, plaintiff herein, or its right to exist and enjoy its rights, privileges, and freedom under the laws under which it was created; for costs herein expended, and will ever pray."

The complaint avers the capacity in which the plaintiff sues, and the objects of its corporate existence as follows: "That plaintiff is a corporation organized and existing by and under the laws of the State of Colorado, for the purpose of promoting a thorough knowledge in its members of theoretical and practical steam engineering, to help each other to obtain employment, bury the dead, extend the license law throughout the United States as well as the State of Colorado, and for the further purpose of helping its members according to the terms set forth in its certificate of incorporation, reference to which is hereto made." The complaint further states that the plaintiff is a "nonstriking labor organization;" that certain of the defendants are trustees of an organization called the "Trades and Labor Assembly," which is composed of various labor unions of Denver and vicinity, and was organized for the purpose (among other things) "of enforcing the rights of their several component parts by ordering a strike against all other organizations, employers, or individuals against whom it or they may have a grievance, and can not enforce their rights upon which they base their demands;" that certain other defendants are officers and members of an organization known as "Steam Engineers' Protective Union, No. 5703, of the American Federation of Labor," whose objects are to compel all stationary steam engineers to join their order, "and to resort to force by boycotting anyone who employs stationary steam engineers not members of said organization," or not subject to its orders or those of the Federation of Labor; and that the members of this organization are also members of the Trades and Labor Assembly.

It is also alleged that in March, 1892, the plaintiff was admitted into, and became a member of, the Trades and Labor Assembly, and in April, 1893, was expelled from that body, because its charter, constitution, and by-laws declared that it was a "nonstriking" organization; and that its expulsion was in pursuance of a conspiracy among certain of the defendants, members of the assembly, who, together with the other defendants, have since its expulsion been constantly endeavoring "in all manner and ways, both openly and in secret, to destroy and exterminate" it. This purpose was proposed to be accomplished "by declaring boycotts and strikes and using other means of warfare known to striking organizations against any and all who would employ any stationary steam engineer who was a member or belonged to Silver State Council, No. 1, of the American Order of Steam Engineers." Some instances are given in which it was attempted to compel engineers belonging to the plaintiff's organization to join the union, or procure their discharge from employment, by threatening to "boycott" and "levy strikes against" their employers. The plaintiff is a corporation,

and to entitle it to relief, it must appear that its corporate rights are threatened with some injury of a kind which may be made the subject of an action, and for which courts have the power to afford redress. The complaint is that the defendants have banded together and conspired to "exterminate" the plaintiff; and that they propose to accomplish their purpose by compelling its members to leave it. Of course, when its members have all withdrawn, it will be extinct. We need not discuss the character of the means to be employed for its disintegration. Whether they are legal or illegal, they can not be made the subject of an action in favor of the plaintiff. It has no property in its members, and, in losing them, it sustains no damage which the law recognizes as damage. It can not compel its members to remain with it; and, if they are violently driven out of it,—if they are forced to relinquish their membership against their will,—the grievance is theirs, and not the plaintiff's. Or if, for the purpose of forcing their withdrawal, others, by means of "boycotts" or "strikes," are made to suffer, the latter must fight their own battles. The law does not make the plaintiff their champion. The disorganization and resulting extinction of the plaintiff would, doubtless, be a calamity; but it is one which the law is powerless to avert. We have cited no authorities because we can find none which are of any use. If a case bearing the remotest analogy to this was ever the subject of adjudication, our most diligent effort has failed to unearth any record of it. The judgment will be affirmed.

EMPLOYERS' LIABILITY—*Durst v. Carnegie Steel Co., Limited. 33 Atlantic Reporter, page 1102.*—This was an action to recover damages for the death of Andrew Durst, who was an employee of the defendant, and lost his life by the fall of an embankment of earth into a ditch, which he was engaged with others in digging on October 18, 1893. The plaintiff was nonsuited in the court of common pleas of Allegheny County, Pa., and carried the case on appeal to the supreme court. In the opinion of the court of common pleas the following points were decided: (1) When a master intrusts to the superintendent in charge of an excavation the matter of notifying the employees of any latent danger, the foremen in charge of the gangs engaged in the work of excavation are not vice principals in the absence of the superintendent, so as to render the employer liable for their failure to notify the employee of such danger. (2) When the only possible danger to an employee engaged in making an excavation is such as may arise during the progress of the work, the employer is not bound to stand by during the work to see if a danger arises, it being sufficient if he provides against such dangers as may possibly arise and gives the workmen the means of protecting themselves. In arriving at these conclusions the following language was used by said court:

The principles of the law governing such cases are well established. The difficulty arises in their application to particular cases. An employee assumes all the ordinary risks of the business in which he may be employed. This includes accidents caused by the negligence of coemployees. But the master owes certain duties to the employee, and

among these is to furnish a reasonably safe place to work, and to notify the employee of any latent danger of which the employer has knowledge, or with reasonable care would know. These duties can not be avoided. If the master intrusts them to another, the latter becomes a vice principal, and the master is liable for any neglect by him in performance of the duties imposed by law upon the principal. It does not matter how many intermediates there may be, the person to whom the duty is committed is vice principal. In this case the duty was intrusted to John Molamphy, superintendent of labor, who had charge of all excavations. The company was therefore responsible for any neglect by him to perform the duty imposed by law upon them. It is contended that Patterson and McMillan, who were foremen of the gangs engaged at this work, were charged with the duty of protecting it in absence of Molamphy, and were therefore vice principals for the time being. We do not so understand it. They were mere foremen in charge of the men, supervising and directing their labor. Under all the cases they were coemployees with the men under their charge. We do not understand that Molamphy turned over any of his duties to them, but merely instructed them, in cases of necessity, to call him or the carpenter to provide against danger. There was no evidence to show contributory negligence on part of deceased. The only question, therefore, is whether there was evidence of neglect on the part of Molamphy to perform any of the duties imposed by law upon the defendants. The duty which it is alleged was neglected is that of furnishing a reasonably safe place to work. It will be observed that the place as it stood when the work commenced was perfectly safe. The danger could only arise as the work progressed, and be caused by the work done. In such a case we do not think it is the duty of the employer to stand by during the progress of the work to see when a danger arises. It is sufficient if he provides against such dangers as may possibly or probably arise, and gives the workmen the means of protecting themselves. They should look out for such dangers and use the means provided.

The supreme court, on January 6, 1896, approved the decision of the court of common pleas and affirmed its judgment in the following terms:

The opinion of the learned court below on the motion to take off the nonsuit is so full, clear, and convincing that for the reasons there stated, and upon the authorities cited, we affirm the judgment in this case.

PROTECTION OF GARMENT WORKERS IN SWEAT SHOPS IN MARYLAND.

[January session, 1896, chapter 363, public local laws.]

SECTION 1. *Be it enacted by the General Assembly of Maryland*, That two new sections be and the same are hereby added to article 4 of the Code of Public Local Laws, title "City of Baltimore," under the subtitle "Buildings," to follow section 131, to be designated as sections 131A and 131B, and to read as follows:

131A. It shall not be lawful for any person, agent, owner or proprietor of any sweat shop or factory where four or more persons are employed, to use any coal oil, gasoline, or any other explosive or inflammable compound for the purpose of lighting or heating in any form; any person, agent, owner or proprietor violating the provisions of this section shall be guilty of a misdemeanor, and, on conviction thereof, be fined by the court before whom such conviction is had for every violation, the sum of one hundred dollars and costs, and stand committed until such fine and costs be paid.

131B. The owner or owners of any such house or building used as a sweat shop or factory where four or more persons are employed as garment workers, on other than the first floor of such house or building, shall provide fire escapes for the same, and if any owner or owners of any such house or building so used, fail to make or provide a fire escape within six months after the passage of this act, upon conviction thereof, shall pay a fine of two hundred dollars to be recovered as other fines in this State, or imprisonment in the city jail for sixty days, or both fine and imprisonment, in the discretion of the court.

SEC. 2. *And be it enacted*, That this act shall take effect from the date of its passage.

Approved April 4, 1896.

RECENT GOVERNMENT CONTRACTS.

[It is proposed to publish in the Bulletin from time to time statements of the contracts for constructions entered into by the Treasury, War, and Navy Departments.]

The following contracts have been made by the office of the Supervising Architect of the Treasury:

FISHERMANS ISLAND, VA.—June 11, 1896. Contract with William H. Virden, of Lewes, Del., for work on new toilet rooms, plumbing, piping, sewer, miscellaneous work, etc., in connection with extensions to barracks at quarantine station, for $2,032.60. Work to be completed within fifty-five days.

NEWBERN, N. C.—June 24, 1896. Contract with Gude & Walker, Atlanta, Ga., for interior finish, plumbing, approaches, etc., for post office, courthouse, and customhouse, $20,080. Work to be completed within seven months.

WASHINGTON, D. C.—June 25, 1896.—Contract with Crook, Horner & Co., Baltimore, Md., for low-pressure steam-heating apparatus for extension to United States Bureau of Engraving and Printing, $1,638.20. Work to be completed within thirty days.

NEWARK, N. J.—June 26, 1896. Contract with the Standard Paving Company, Newark, N. J., for approaches to customhouse and post office, $5,000. Work to be completed within thirty days.

PHILADELPHIA, PA.—June 30, 1896. Contract with Morse, Williams & Co., Philadelphia, Pa., for two hydraulic passenger elevators in the courthouse and post office, $22,097. Work to be completed within four months.

CHICAGO, ILL.—July 1, 1896. Contract with D. H. Hayes, Chicago, Ill., for the erection and completion of an operating wing to the United States Marine Hospital, $6,948. Work to be completed within three months.

PAWTUCKET, R. I.—July 6, 1896. Contract with L. L. Leach & Son, Chicago, Ill., for erection and completion (except heating apparatus) of post office, $40,774. Work to be completed within ten months.

MILWAUKEE, WIS.—Contract with Empire Fire Proofing Company, Chicago, Ill., for terra-cotta fireproofing, miscellaneous ironwork, etc., on post office, courthouse, and customhouse, $39,800. Work within building proper to be completed within ninety days, in tower within fifteen days from the time roofs are on.

The following contracts have been made by the Navy Department:

PITTSBURG AND SOUTH BETHLEHEM, PA.—June 1, 1896. Contract with the Carnegie Steel Company, of Pittsburg, and the Bethlehem Iron Company, of South Bethlehem, for nickel-steel armor plates and appurtenances for battleships Nos. 5 and 6, the "Kearsarge" and the "Kentucky," the former amounting to $1,660,518.20 and the latter to $1,462,191.80.

BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 6—SEPTEMBER, 1896.

ISSUED EVERY OTHER MONTH.

EDITED BY

CARROLL D. WRIGHT,
COMMISSIONER.

OREN W. WEAVER,
CHIEF CLERK.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1896.

CONTENTS.

BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 6. WASHINGTON. SEPTEMBER, 1896.

INDUSTRIAL COMMUNITIES. (a)

BY W. F. WILLOUGHBY.

CHAPTER V.

FAMILISTÈRE SOCIETY OF GUISE, FRANCE.

The study of the history and practical operations of the Familistère Society of Guise is of interest for reasons quite different from those that render interesting the study of the other industrial centers that have been described. In the latter cases the industrial undertakings have been organized and conducted on the same basis as that existing for the conduct of business generally. The industrial organization of the Familistère of Guise, on the other hand, is unlike that existing anywhere else in the world. This organization has been the result, not of a historical growth, but of a deliberate putting into execution of a previously elaborated scheme by which it was intended to build up a special industrial community on a distinctly communistic basis. The object sought was to secure a perfect mutuality of interests of all concerned in production. This mutuality was to be obtained not only by the introduction of an advanced type of cooperative production and distribution, but by the erection of large tenement houses, called "familistères," in which the members of the society should reside almost as one big family, by the common education of the children of members, by the erection of a theater and bath and wash houses for general use, and by the development of mutuality in every way through the organization of mutual insurance and aid funds and kindred institutions.

The present society dates from 1880, when it took over the business until then carried on by M. Godin as an individual enterprise. To

a See footnote to the beginning of this series of articles in Bulletin No. 3.

understand the present character of the Familistère of Guise, it is necessary to trace its rise in the history of the industry as created and for several decades carried on by M. Godin. The treatment of the Familistère of Guise embraces, therefore, three parts:

1. History of the business of M. Godin from its creation in 1840 until the organization of the Société du Familistère de Guise in 1880.
2. Organization and description of the society.
3. Results of the practical operations of the society from 1880 until the present time.

HISTORY OF THE BUSINESS OF M. GODIN.

M. Jean-Baptiste-André Godin, the founder of the business now carried on by the Société du Familistère de Guise, the founder of the society, and until his death, in 1888, its general manager, was born January 26, 1817, at Esquehéries, a small village in the Department of Aisne, France. His father was a simple artisan of the village. His schooling was of the most rudimentary description, differing in no respect from that received by the children of other workingmen and peasants. At 11 years of age he commenced his apprenticeship as a locksmith in his father's workshop. Here he remained until his seventeenth year, when, following the custom prevalent at that time, he undertook a tour of France in order to perfect himself in his trade. In 1840, being then 23 years of age, he returned to his native village and opened a small workshop for the manufacture of stoves and related iron utensils. In this he made a radical departure from existing methods of manufacture. As the result of inventions, for which he received letters patent, he commenced the manufacture of stoves from cast instead of sheet iron, which had previously been employed.

He continued to invent new devices, for which he secured in all over fifty letters patent. As a result of these improvements his industry increased constantly in importance, and in 1846 he found it advisable to move his works to Guise, a neighboring village more favorably situated for the conduct of a large manufacturing enterprise. At this date he employed about thirty workingmen. After its removal to Guise the business continued to grow, until to-day it is one of the most important manufacturing establishments in France. Until 1859 the history of the industry differs little from that of any growing establishment. In that year was commenced the erection of the left wing of the familistère, a large building for housing the employees of Godin; also the inauguration of a system for the organization of labor that in the future was to give to the life of the employees of the establishment its peculiar character.

Before entering upon a description of this system, it is necessary to go back and trace what were the exact aims that M. Godin desired to realize through it. From his earliest years Godin developed the spirit of a philosopher who meditated deeply upon conditions surrounding

him. When but 11 years of age, while at school, he was harboring plans for improving methods of instruction. But from the moment of his entrance into active industrial life he devoted all his energies toward devising methods for the improvement of the conditions of the industrial classes. The development of the communistic ideas of St. Simon, Cabet, and Fourier gave a final shaping to his thoughts, and in him Fourier found his most ardent disciple. It is unnecessary to enter deeply into this period of Godin's life. In his book entitled Solutions Sociales, published in 1871, an English translation of which was made by Marie Howland in 1886, Godin has given us his autobiography and a full statement of the development of his theories and his connection with Fourierism. In the abortive attempt of M. Victor Considérant, in 1853, to establish a community in the State of Texas to be conducted on Fourier's communistic plans Godin lost 100,000 francs ($19,300), or one-third of his fortune at that time. Nothing daunted by this failure, Godin determined to introduce into his own industry his ideas regarding mutuality, and by the gradual reconstruction of the organization of the industry transform it into one conducted upon a strictly communistic basis. The ideas that he wished to realize were, briefly, these:

First, and above all, the principle of mutuality was to be developed in every possible way. To do this there were to be created institutions answering to almost every need of his employees, by means of which the lives of the employees were to be lived largely in common. The keystone to the whole system of mutuality would be the congregation of his employees and their families into large tenement houses, called "familistères," where to some extent they were to live as one great household. The children were to be educated in common schools; a cooperative store would furnish supplies to all the members; mutual aid societies and insurance funds against accidents, sickness, and old age would develop the spirit of solidarity; and bath and wash houses, a theater, restaurants, etc., were to be erected for common use.

Second, the industry was gradually to be transformed into one conducted on a strictly cooperative basis. The employees were to own not only all the familistères where they lived, the schools, theaters, etc., but the manufacturing plant as well. Nothing, probably, shows the remarkable business capacity of M. Godin better than his recognition of the impossibility of putting his plans, in their entirety, into immediate execution. For success it was necessary first to create a stable body of workingmen devoted to the interests of his establishment and to develop in them the principles of mutuality. It was his intention to create all the institutions necessary for the life of an industrial settlement, such as he planned, while he was yet in complete control, and then, when the ground had been completely prepared and the essential parts of the machinery of government had been running satisfactorily

for some time, to bring into existence the association of workingmen that should take over its management and introduce the principles of complete mutuality, both in the conduct of the industry and in the ordinary life of the employees. To do this required a period of twenty years. The first step was taken in 1859, when the corner stone of the left wing of his principal familistère was laid. This wing was finished and occupied in 1861. The following year (1862) the central pavilion was commenced, and in 1865 it was ready for occupancy. It was not until 1877 that this familistère was completed by the erection of the right wing. The increased demand for apartments, after the constitution of the society, led to the erection in 1882 of the small familistère of Landrecies, and, in the following year, the large familistère of Cambrai. School buildings, a theater, a restaurant, and bath and wash houses were in the meantime erected, until finally there existed around the factories all the buildings necessary for the self-contained life of the members of the society.

ORGANIZATION AND DESCRIPTION OF THE SOCIETY.

The character of the Familistère Society of Guise at the present time differs little from what it was in 1880, when the society was first constituted, except in such particulars as would necessarily result from an enlargement of the business and the construction of two additional familistères. The description that follows is of conditions as they exist at the present time:

The business comprises the manufacture of stoves, iron ware enameled with porcelain, lamps, kitchen utensils, etc. The total amount of land owned by the society for its various purposes amounts to 41.6832 hectares (103 acres), of which 35.3813 hectares (87.4 acres) are at Guise and 6.3019 hectares (15.6 acres) at Laeken, Belgium. The plant at Laeken is operated in every way as a branch of the central establishment at Guise. A familistère has been built there for the housing of the employees, and the industry and life of the employees are conducted under the constitution and regulations that prevail at Guise. No further special mention will be made of Laeken. The figures, however, given in all the statistical tables, excepting those on pages 593 and 594, which pertain only to Guise, relate to the entire industry as carried on at both places.

The land owned at Guise is situated on the river Oise just on the outskirts of the village. Of the total of 35.3813 hectares (87.4 acres) the factories and their dependencies occupy 10.6103 hectares (26.2 acres), the familistères, schools, etc., and the open place and grounds surrounding them, 2.6514 hectares (6.5 acres), and the remaining land, 22.1196 hectares (54.7 acres), is given over to parks, lawns, vegetable gardens, etc. The river Oise divides the ground into two parts. Upon one bank are located all the factory buildings, the smallest of the familistères, and the bath and wash houses. On the other side are

built around a central place the main familistère, usually designated the "Palace," the third familistère, and the schools, theater, restaurant, etc.

In 1880 M. Godin believed that the time had come for putting into execution his long-cherished plans of an association to consist of the workingmen of his establishment who should take over the industry and conduct it and its various mutual institutions on a cooperative basis. All the institutions necessary for the working of his plan, including even a system of profit sharing, were then in existence. For years he had been at work on the drafting of a constitution. This was now completed. The workingmen whom he had already accustomed to the principles involved in it were called together and the constitution was formally adopted. Its length, some 150 pages, and the detail of its provisions—it regulates not only the organization of the association, but lays down at length the rules for the subsequent administration of every branch of the service—render it inadvisable to attempt to translate it in extenso. Instead, only the provisions necessary for a satisfactory understanding of the basis upon which the association is organized and its affairs conducted will be discussed. But even to do this will require considerable space, as the system here put into operation provides not only for the organization of an industry along special lines, but the regulation of all the details of life of its members grouped together in a unique community.

The association is named Familistère Society of Guise: Cooperative Association of Capital and Labor (*Société du Familistère de Guise: Association Coopérative du Capital et du Travail*). Its objects are declared to be the organization of a solidarity of interests among its members, by means of the participation of capital and labor in profits, and the maintenance of common institutions for their mutual welfare. Its membership consists of persons of both sexes, who, having signed the constitution, are the possessors of one or more shares of the society's certificates of stock and cooperate in the work of the society.

The scheme of membership provides for a regular hierarchy through the division of members into classes, according to the extent to which they are interested in the affairs of the society and the length of time they have been connected with it. The members proper are divided into three classes, viz, associés, sociétaires, and participants. To become an associé a person must be 25 years of age, a resident of one of the familistères and an employee of the society for at least five years, able to read and write, an owner of certificates of stock of the society to the value of at least 500 francs ($96.50), and he must be admitted by the general assembly as an associé. A sociétaire is required to be 21 years of age and free from military duty, a resident of a familistère, an employee of the society three years, and he must be admitted by the managing council as a sociétaire. A participant must be 21 years of

age, free from military duty, an employee of the society one year, and he must be admitted by the managing council as a participant. In addition there are two other classes, called, respectively, intéressés and auxiliaires, who are not members, properly speaking, of the society. The first consists of outsiders who have come into possession of certificates of the society, but take no part in its work. The second is composed of workingmen who are employed by the society as demand for extra help is felt, but who have not fulfilled the requirements of membership.

This division into classes is of prime importance, for it is made the basis of the entire organization of the society, and the rights and privileges of each class differ widely. This difference of treatment relates principally to the division of profits, the right of employment, the right to live in the familistères, and participation in the government of the society. In the division of profits, as will be seen later on, the associé participates on the basis of double the amount of his annual earnings, the sociétaire on the basis of one and one-half times his earnings, and the participant on the basis of the exact amount of his earnings. As regards retention in case of lack of employment, the preference is given first to the associé, secondly to the sociétaire, and thirdly to the participant. The same order of preference is followed in the disposition of apartments in the familistères.

The administration of the affairs of the society is exclusively in the hands of the associés. They constitute the general assembly which elects all the officers and committees. The intéressés and auxiliaires, not being members of the association, do not, of course, participate either in profits or in the management of affairs. The rights of the first are limited to the receipt of interest on and the proportion of profits apportioned to the certificates owned by them; those of the second to their wages and a certain participation in the various mutual aid societies organized within the society.

To the society thus constituted, Godin turned over the entire property connected with his industrial establishment. But it was by no means his intention to give this property to the society. In founding the latter he had a double aim in view—to show, by a practical example, the advantages of conducting a business on strictly cooperative principles and to demonstrate to manufacturers that the transfer of the establishment from their hands to those of their employees could be accomplished without the former making any sacrifice, either in the way of loss of capital invested or in a legitimate interest. In both of these aims Godin achieved a complete success.

The means by which this transfer was accomplished are alone sufficient to mark the society as one of the most interesting industrial undertakings, from a social point of view, that has ever been projected. A careful inventory of the value of the property was first made. The total value was estimated at the sum of 4,600,000 francs ($887,800).

The criticism has never been made that this was an excessive valuation. In return for the property thus handed over to the society, the latter issued founder's certificates (*titres d'apports*) to a like amount. These founder's certificates constituted the provisional capital stock of the society. They bore interest at the rate of 5 per cent, a very fair return on a commercial investment in France, and were also entitled to share in the division of the profits, as hereafter described. The payment of this interest constituted a first charge on the receipts of the society after operating expenses had been paid. The society, therefore, started with all its capital stock in the possession of M. Godin himself. The constitution, however, expressly stipulated that these certificates could be purchased at any time by the society at their face value. This was done in the following way: After all expenses of production, including interest on certificates and certain statutory charges, have been met, the net profits remaining, instead of being divided in cash among the members of the society, are applied to the purchase of founder's certificates. As fast as the latter are purchased they are canceled, and in their place there are issued to like amount association certificates or savings certificates (*titres d'épargnes*), as they are called, which latter are distributed among the members of the society as profits. The total of founder's certificates and association certificates thus always equals the sum of 4,600,000 francs ($887,800). There is absolutely no difference between the two kinds of certificates regarding the right to interest or participation in profits. When all the founder's certificates have been replaced by association certificates the society acquires the absolute ownership of its property.

But it was not sufficient to make provisions by which the society could replace founder's certificates by those of its own. As members owning certificates died or resigned from the society, certificates would be constantly passing into the hands of persons not members of the society. It was therefore necessary to devise means by which the certificates could be kept in the possession of members. This was accomplished by the provision of the constitution that association certificates are at all times redeemable, and that as soon as all the founder's certificates have been canceled, the profits should be applied to the purchase of those association certificates bearing the earliest date, those held by outsiders being purchased whenever possible. These are then canceled and an equal amount of new certificates are issued, which, being distributed as profits, go to members of the society. In this way there goes on a constant process of cancellation of old certificates and the issue of new certificates in their place, the total amount outstanding always remaining the same.

The adjustment of financial relations, such as the determination of the remuneration of labor and capital and the division of profits, was arranged with no less ingenuity than that regarding the acquisition and retention of the stock of the society. The essential parts

performed by labor and capital in the processes of production are distinctly recognized. The wages system is retained in its entirety, and the right of capital both to interest and to a share in profits is affirmed with no less emphasis. The determination of the proportion of profits going to each is made in accordance with the following theory: The capital of capital, if the expression may be permitted, consists of its potentiality to purchase, i. e., to give to its owner commodities of value. The capital of labor consists of its power to create, i. e., to give to its owner commodities of value. The wages of capital consists of the amount it can earn during a certain period, i. e., its interest. The wages of labor consists of the amount it can earn, i. e., wages strictly so called. An equitable division of the products of industry, according to this theory, therefore, accords to each: First, its wages, i. e., to capital its interest and to laborers their earnings, these items entering into the cost of production before any profits can be realized; second, a participation in net profits according to the amount of work done by each, i. e., in proportion to the interest earned by capital and the wages earned by labor. A clear distinction is thus made between what capital earns in the way of interest and what as profits. This is but the broad theory. The actual apportionment of profits is a considerably more complicated matter. The exact method of division is fixed by the constitution. The sum remaining after the payment of all operating expenses, in which latter sum is included the wages of all employees, constitutes gross profits. From these gross profits the following four fixed charges must be met: (1) The payment of 5 per cent of the value of the buildings, 10 per cent of the value of the tools and machinery, and 15 per cent of the value of models into a fund to meet depreciation in the value of the plant; (2) the payment of a sum equal to 2 per cent of the total amount paid out in wages to the fund for the insurance of workingmen; (3) the payment of not less than 25,000 francs ($4,825) into a fund for the education of children of members; (4) the payment of 5 per cent interest on 4,600,000 francs ($887,800) of capital stock, whether represented by founder's or association certificates. The sum remaining after making these four payments constitutes net profits for distribution on a cooperative basis. Three classes of services are deemed to have a right to participate in net profits, viz, labor, capital, and directors, or those officials who manage the affairs of the society. The apportionment is as follows:

First. Twenty-five per cent is applied to a reserve fund until such fund has amounted to 10 per cent of the capital stock, or 460,000 francs ($88,780). This amount was reached in 1881, and since then this portion of profit is added to that allotted to labor and capital.

Second. Fifty per cent (since the constitution of the reserve fund, 75 per cent) is apportioned to labor and capital to be divided according to the principles described above.

Third. Twenty-five per cent to those officials who manage the affairs of the society.

It was realized that it was indispensable to the success of the undertaking to secure men of ability for these services, and it was an example of great wisdom to thus make them so largely and directly interested in the financial results of the society. The details of the division of profits within the two classes of directors and labor and capital are as follows:

Of the 25 per cent allotted to directors 4 per cent is given to the general manager, 16 per cent for division among the members of the managing council, 2 per cent to the council of audit and control (*a*), 2 per cent to the managing council for distribution to workingmen who have performed exceptional services, and 1 per cent for the preparation and maintenance of one or more scholars in the advanced schools of the State.

The 75 per cent allotted to labor and capital is distributed in the following manner: The wages of capital represented by the interest of 5 per cent on the capital stock of 4,600,000 francs ($887,800) is always a fixed sum, 230,000 francs ($44,390). The wages of labor of course varies, but the total amount for the purpose of division of profits is calculated at a sum considerably greater than that actually paid. The members of the society, as has been described, are divided into a hierarchy of classes, the higher of which enjoys privileges greatly superior to those of the lower. The chief privilege is the relative extent to which they participate in profits. According to the formula of Godin, incorporated into the constitution, associés share in profits on the basis of twice the amount of their earnings, the sociétaires, one and one-half times, and the participants and auxiliaires, the exact amount of their earnings. The sociétaires and participants, however, living in the familistères and having been twenty years in the employ of the society, are included for this purpose among the associés, and participants not inhabiting the familistères, but having been twenty years in the employ of the society are included among the sociétaires. The amount apportioned to auxiliaires, morever, is not paid to them, as they are not members, but is turned over to the insurance fund. The total of these various items, then, represents the total claims of labor. This seemingly complicated but really simple method of profit sharing will be much more easily understood by the use of the following hypothetical example:

	Francs.
Net annual profits	300,000
Apportioned to directors, 25 per cent	75,000
Apportioned to capital and labor, 75 per cent (reserve already constituted)	225,000

a The duties of these officers are described on pages 578 and 579.

For the division of the latter amount the following calculation is required:

	Francs.
Profit-sharing wages of capital (5 per cent interest on 4,600,000 francs)	230,000
Profit-sharing value of wages of labor—	
Associés (240,000 francs × 2)	480,000
Sociétaires (430,000 francs × 1½)	645,000
Participants (actual amount of wages)	675,000
Auxiliaires (actual amount of wages)	470,000
Total profit-sharing value of wages of capital and labor	2,500,000

The per cent of profits is obtained from the formula—

$$\frac{\text{Profits multiplied by 100}}{\text{Profit-sharing value of wages of capital and labor}} = \frac{225{,}000 \times 100}{2{,}500{,}000} = 9 \text{ per cent.}$$

To each class, therefore, are apportioned the following profits:

	Francs.
Capital, 230,000 francs at 9 per cent	20,700
Associés, 480,000 francs at 9 per cent	43,200
Sociétaires, 645,000 francs at 9 per cent	58,050
Participants, 675,000 francs at 9 per cent	60,750
Auxiliaires, 470,000 francs at 9 per cent	42,300
Total	225,000

It is unnecessary to follow the distribution to the individual members of each class. An inspection of this scheme shows that the rewards of labor, in addition to wages, are by no means represented by the sums set down in the annual reports as the proportion of profits allotted to labor. In the first place, two items of expenditure, those of a sum equal to 2 per cent of the amount paid out in wages given to the insurance fund and the sum of not less than 25,000 francs ($4,825) to the fund for the education of children of members, are carried to operating expenses before net profits are obtained. Again, in the actual division of profits 25 per cent of the total amount is given to directors (high-class labor) before capital is allowed to participate; and here, again, labor enters proportionately to an amount considerably in excess of the sum actually paid in wages, and finally, capital profits not at all in the amount apportioned to the earnings of auxiliaires which is carried to the insurance fund. These conditions, however, are not so unfair toward capital as at first appears. The insurance of workingmen and the aid in the education of children of employees is by a great many of the more important industrial concerns of France considered as a legitimate item of the cost of production. The proportion of profits allotted to directors can be considered as a portion of their remuneration, and therefore an item in the cost of operation. The main departure from the theory of a division of profits according to the wages of labor and capital is in the multiplication of the earnings of the associés and sociétaires by two and one and one-half, respectively, before an apportionment of profits is made. This question, however, has not the importance that it would have were the capital held by others than members of the society.

Fixing the rate of wages in a cooperative enterprise is in itself, frequently, a matter of considerable delicacy. This difficulty is entirely avoided at Guise by the retention of the wages system in its entirety. As the society is always under the necessity of employing workingmen who are not members, its policy has necessarily been to fix the rate of wages according to the rules that pertain elsewhere in similar establishments. The general manager, the directors of the different services, and the office employees are paid by the month. The wages of the workingmen proper are, as far as possible, fixed by the piece, in order that each one can earn according to his capacity. When this can not be done wages are paid by the hour, and every precaution is taken to have the rate so determined that justice will be done between the piece and time workers. The rate is determined by the general manager, with the advice of the managing council. In case of dissatisfaction, complaint can be made to a workingmen's committee (*syndicat du travail*), which, together with the managing council, regulates the difficulty.

Thus far attention has been given only to the industrial branch of the society. The work of the society, however, comprehends two distinct spheres of activity, viz, the conduct of an industrial enterprise on a cooperative basis and the creation and management of various social institutions for the common benefit of its members in order that certain ideals concerning mutuality might be realized. To do this four main classes of institutions were organized: (1) Familistères and annexes (bath and wash houses, etc.), in order that the members may, to a great extent, live in common; (2) the provision of schools and schooling facilities for the care of the children of members, and their education in common from their earliest years until they are able to commence work; (3) the maintenance of funds for the mutual aid of members in need, and their insurance against accidents and sickness, and their pensioning in old age; (4) the organization of a cooperative system for the purchase and supply to members of articles of necessary consumption. It is the existence of these last features that gives to the work of the society its unique character and makes it of special interest as a social study.

The machinery of government is so constructed that its control must always fall into the hands of the older members, and therefore presumably into the hands of those most interested in the welfare of the society and most competent to be at its head. This is accomplished by taking advantage of the division of members into grades of classes. Sovereignty, if it is permissible to use the word in this connection, resides in a general assembly composed of all members of the society with the rank of associé. The general assembly meets once a year in regular session to hear annual reports, to elect officers, etc. Extraordinary meetings may be called if necessity arises for them. The duties of the general assembly include the approval of annual reports, the

sanctioning of all important matters of policy, the election of a general manager, the admission of members to the rank of associé, the modification of constitution and by-laws, and, in general, a supervision over the affairs of the society.

The actual business interests of the society are administered by a general manager (*administrateur-gérant*), assisted by a managing council (*conseil de gérance*), and three councils—council of industrial matters (*conseil de l'industrie*), council of management of the familistère (*conseil du familistère*), and council of audit and control (*conseil de surveillance*). The general manager is the executive head of the society. He unites in himself not only the duties of the ordinary official of that name, but many of those that in the case of a private industry belong to the proprietor of the establishment. He is responsible to the general assembly alone. He appoints and dismisses workingmen, within certain limits, however, and in general manages all the affairs of the society. He is elected by the general assembly for life, and can be removed only on account of the failure of the society to pay interest on the capital invested or because of misconduct or infraction of the provisions of the constitution. His salary is 15,000 francs ($2,895) and 4 per cent of the net profits in addition to participating in profits in proportion to the amount of his salary and the capital of the society that he may possess.

The general manager is aided in all his work by a managing council, the consultation of which by him is in many cases obligatory. This council consists of the general manager himself, who is its president, a maximum of ten ex officio members, three associés elected annually by the general assembly, and such other persons the importance of whose positions renders it desirable that they should have a place on the council. The ex officio members are the chiefs of the different services into which the establishment has been divided, viz, commerce, manufactures proper, setting up, foundry, materials, supplies, chief accountant, accounts and control, models, and familistère. It would be impossible to enumerate all the duties of the board. It oversees the interests of the society, it controls expenditures, it authorizes repairs, it admits members as sociétaires and participants, and, in general, its advice must be taken on all important questions when submission to the general assembly itself is not required. Members of the council receive no additional salary other than the supplemental participation in net profits, as described under the division of profits.

But a few words will be necessary to describe the rôle of the three other councils that have been mentioned among the administrative agencies of the society. The council on industrial matters is composed of the same members as the managing council. It meets once a week to decide all questions relating to the practical operations of the conduct of the industry. The council of audit and control is composed of three members, elected by the general assembly at its annual meetings,

and has as its special duty the auditing of all accounts, the verification of reports, etc. The council on management of the familistères is composed of all associés who are members of the managing council, and is presided over by the general manager. Its duties consist of the management of all affairs relating to the familistères. It makes regulations concerning the care of the buildings; it gives its advice concerning the purchase of supplies for the cooperative stores, and concerning the renting and vacating of apartments. Members receive no extra compensation for their services on these councils.

OPERATIONS OF THE SOCIETY FROM 1880 TO THE PRESENT TIME.

The history of the practical operations of the society during the fifteen years that it has now been in existence offers no fact in the way of a change of policy of sufficient importance to be recorded. The society has continued steadfastly in the way mapped out for it by its constitution. The greatest strain that could occur to it was the death in 1888 of M. Godin, who had until then remained its general manager, and was of course the moving spirit of the whole undertaking. So firmly, however, had M. Godin founded his work that his death had practically no effect on the prosperity of the society. A new general manager, M. Dequenne, was elected, as provided for by the constitution, and the work of the society went on without break or modification of policy. As regards its growth in importance and numbers, the society has held its own, increasing, if at all, but slowly. The following table shows for each year since 1880 the total number of employees, the total amount paid out in wages, and the total value of the product:

EMPLOYEES, WAGES OF EMPLOYEES, AND VALUE OF PRODUCT OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1894-95.

Year.	Employees.	Wages.	Value of product.	Year.	Employees.	Wages.	Value of product.
1879-80	1,683	$294,967.81	$764,581.97	1887-88	1,691	$374,003.01	$848,178.10
1880-81	1,577	361,553.02	963,450.13	1888-89	1,881	421,498.29	742,329.30
1881-82	1,493	388,181.14	881,756.68	1889-90	1,768	405,704.51	783,536.51
1882-83	1,401	364,354.89	787,503.23	1890-91	1,713	416,988.31	794,859.21
1883-84	1,448	350,145.90	679,465.88	1891-92	1,706	429,502.49	791,993.08
1884-85	1,347	351,909.27	668,851.82	1892-93	1,724	408,934.65	768,324.89
1885-86	1,540	343,896.29	680,326.04	1893-94	1,676	410,454.11	774,816.48
1886-87	1,526	338,428.75	669,018.97	1894-95	1,720	421,217.87	800,927.79

The growth of membership, as distinct from the growth of the total number of employees, is a feature of prime importance in the history of the enterprise. The democratic principles underlying the scheme of the society look to the gradual development of a system where practically all employees will be members, and, as far as possible, all members on the same footing. Though grades of membership were created, this was done only to insure that the management of affairs should be in the older and more competent hands. There has not been manifested the slightest desire on the part of the associés to restrict their number,

but, on the other hand, those in the lower grades have always been encouraged to fulfill the conditions necessary for their admittance to a higher class. The kind of organization aimed at is one where all the members of the society would be associés, and therefore participate on an equality in the management of affairs and in the profits. The following tables showing the mutation of membership are of the greatest interest, indicating as they do the steady carrying out of the ideas for which the society stands pledged:

MEMBERS ENTERING AND LEAVING THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1894-95

Year.	Associés.			Sociétaires.			Participants.			Total members.	Auxiliaires.	Total employees.	Intéressés.
	Admitted.	Leaving.	Number.	Admitted.	Leaving.	Number.	Admitted.	Leaving.	Number.				
1879-80	46	.....	46	62	.....	62	442	.....	442	550	1,133	1,683	314
1880-81	11	2	55	11	8	65	120	16	546	666	911	1,577	153
1881-82	8	2	61	14	9	a 71	38	.....	a 561	693	800	1,493	153
1882-83	12	5	68	47	13	a 104	112	96	577	749	652	1,401	193
1883-84	5	.....	73	57	13	148	69	75	571	792	656	1,448	209
1884-85	13	3	83	60	20	188	64	92	543	814	553	b 1,347	222
1885-86	11	2	92	37	21	a 207	41	73	a 514	813	727	1,540	206
1886-87	3	2	93	16	18	a 209	23	43	a 491	b 786	743	b 1,526	234
1887-88	13	4	102	67	19	a 250	52	79	464	816	875	1,691	256
1888-89	31	2	131	53	40	263	68	87	a 525	919	962	1,881	309
1889-90	42	1	172	44	58	249	138	98	565	986	782	1,768	297
1890-91	30	1	201	22	38	233	58	59	564	998	715	1,713	307
1891-92	21	6	216	25	30	228	47	67	544	988	718	1,706	327
1892-93	28	8	236	20	38	210	68	42	570	1,016	708	1,724	348
1893-94	31	3	264	51	47	214	68	102	536	1,014	662	1,676	379
1894-95	21	8	277	29	34	209	71	52	555	1,041	679	1,720	385

a These figures do not balance. They are given, however, as published by the society.
b This total does not equal the sum of the items. The figures are given, however, as published by the society.

PER CENT OF EACH CLASS OF MEMBERS OF TOTAL MEMBERS AND OF TOTAL EMPLOYEES OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1894-95.

Year.	Associés.			Sociétaires.		
	Number.	Per cent of total members.	Per cent of total employees.	Number.	Per cent of total members.	Per cent of total employees.
1879-80	46	8.37	2.73	62	11.27	3.69
1880-81	55	8.26	3.49	65	9.76	4.12
1881-82	61	8.80	4.09	71	10.25	4.76
1882-83	68	9.08	4.85	104	13.88	7.42
1883-84	73	9.22	5.04	148	18.69	10.22
1884-85	83	10.20	a 6.16	188	23.09	a 13.96
1885-86	92	11.32	5.97	207	25.46	13.44
1886-87	93	a 11.83	a 6.09	209	a 26.59	a 13.70
1887-88	102	12.50	6.03	250	30.64	14.79
1888-89	131	14.25	6.97	263	28.62	13.98
1889-90	172	17.45	9.73	249	25.25	14.08
1890-91	201	20.14	11.73	233	23.35	13.60
1891-92	216	21.86	12.66	228	23.08	13.36
1892-93	236	23.23	13.69	210	20.67	12.18
1893-94	264	26.04	15.75	214	21.10	12.77
1894-95	277	26.61	16.10	209	20.08	12.15

a Based on totals given; see note b.

PER CENT OF EACH CLASS OF MEMBERS OF TOTAL MEMBERS AND OF TOTAL EMPLOYEES OF THE FAMILISTÈRE SOCIETY OF GUISE, ETC.—Concluded.

Year.	Participants.			All members.			Auxiliaires.		Total employees.
	Number.	Per cent of total members.	Per cent of total employees.	Number.	Per cent of total members.	Per cent of total employees.	Number.	Per cent of total employees.	
1879-80	442	80.36	26.26	550	100	32.68	1,133	67.32	1,683
1880-81	546	81.98	34.62	666	100	42.23	911	57.77	1,577
1881-82	561	80.95	37.57	693	100	46.42	800	53.58	1,493
1882-83	577	77.04	41.19	749	100	53.46	652	46.54	1,401
1883-84	571	72.09	39.44	792	100	54.70	656	45.30	1,448
1884-85	543	66.71	a 40.31	814	100	a 60.43	553	a 41.05	b 1,347
1885-86	514	63.22	33.38	813	100	52.79	727	47.21	1,540
1886-87	491	a 62.47	a 32.18	b 786	100	a 51.51	743	a 48.69	b 1,526
1887-88	464	56.86	27.44	816	100	48.26	875	51.74	1,691
1888-89	525	57.13	27.91	919	100	48.86	962	51.14	1,881
1889-90	565	57.30	31.96	986	100	55.77	782	44.23	1,768
1890-91	564	56.51	32.93	998	100	58.26	715	41.74	1,713
1891-92	544	55.06	31.89	988	100	57.91	718	42.09	1,706
1892-93	570	56.10	33.06	1,016	100	58.93	708	41.07	1,724
1893-94	536	52.86	31.98	1,014	100	60.50	662	39.50	1,676
1894-95	555	53.31	32.27	1,041	100	60.52	679	39.48	1,720

a Based on totals given; see note b.
b This total does not equal the sum of the items. The figures are given, however, as published by the society.

From these tables it can be seen that, while the total number of employees has remained nearly constant, the number of members has constantly increased, and this increase has been almost wholly in the upper classes. The participants have gained on the auxiliaires, the sociétaires on the participants, and the associés on the sociétaires. Another important consideration in this connection is that of the stability of the corps of employees. Statistics on this point are almost the only ones available for determining the extent to which the advantages of a particular establishment are appreciated. In the accompanying table, showing the number and percentage of employees by the number of years employed by the society, the figures for the factories of Guise and Laeken and the familistères are left independent. Of the three the figures for the factory of Guise are of the greatest significance, as the factory of Laeken has not been in operation for so long a time, and the employees about the familistères are mostly women, among whom a great stability is not to be expected.

Of the total employees at Guise, as shown in the table, only about one-third have been employed less than ten years. Ten years may be taken as a fair standard by which to judge of stability. If men continue in the same employ that length of time they are not apt to make a voluntary change. A statement, therefore, in which 67 per cent of all employees have been employed ten years or over shows great stability; for it should be remembered that included among those employed a shorter length of time are a great many youths whose ages render it impossible for them to have been employed ten years.

NUMBER AND PER CENT OF EMPLOYEES JULY 1, 1891, BY YEARS OF SERVICE.

Years of service.	Factory at Guise.		Factory at Laeken.		Familistères.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Less than 5	227	19.29	128	48.67	70	53.03	425	27.03
5 and less than 10	156	13.25	64	24.34	23	17.43	243	15.46
10 and less than 15	245	20.82	26	9.89	15	11.36	286	18.19
15 and less than 20	154	13.08	20	7.60	7	5.30	181	11.51
20 and less than 25	194	16.48	11	4.18	6	4.55	211	13.42
25 and less than 30	96	8.16	10	3.80	7	5.30	113	7.19
30 and less than 25	66	5.61	3	1.14	3	2.27	72	4.58
35 and less than 40	36	3.06	1	.38	1	.76	38	2.42
40 and over	3	.25	.....	.....	.....	.....	3	.19
Total	1,177	100.00	263	100.00	132	100.00	a 1,572	100.00

a This total does not agree with the total employees shown for 1890-91, pages 579 to 581. The explanation is not known. The figures in both cases are as published by the society.

The financial results of the workings of the society will naturally excite the greatest interest. The industry carried on by the society is one offering no especial advantages for its conduct on a cooperative basis, and its successful application here furnishes a valuable demonstration of the practicability of cooperation where a firm basis for its introduction has been previously laid. In this case the first important class of facts is that concerning the success achieved by the society in the replacing of founder's certificates by those of its own. The accompanying table shows the condition of the account at the end of each fiscal year. The present time is a peculiarly opportune one in which to make this study, for at the close of the year, June 30, 1894, the last founder's certificate was purchased and canceled, and the society thus accomplished the work of completely paying for its plant. This fact marks an important epoch in the history of the society. Prior to that date all the profits were devoted to the purchase of founder's certificates, and the actual members of the society received only association certificates, which merely entitled the holder to the interest they earned and the prospect of their redemption in the future. It was thus not until the year 1894–95 that the members began to have their profits paid in cash. As has been explained before, this payment is made in the way of the redemption of the earliest issues of certificates. It will be seen from the table showing the financial operations of the society that there were realized during the year ending June 30, 1895, gross profits to the amount of 880,382.38 francs ($169,913.80). After the payment of the statutory charges for insurance, education, etc., the sum of 287,602.01 francs ($55,507.19) net profits remained for distribution. Of this amount 46,201.01 francs ($8,916.80) were applied to various uses as required by the statutes, and 241,401 francs ($46,590.39) were devoted to the redemption of the association certificates first issued. In addition to this there was available from the profits of former years the sum of 8,550 francs ($1,650.15) which could be applied to the same purpose, making a total of 249,951 francs ($48,240.54) which

were used for the redemption of old association certificates during the year 1894–95. The general manager in his annual report thus comments upon this date in the society's history: "We have now entered upon the regular disbursement in cash of the net profits realized by the association. We have occasion to be satisfied with this result. After fifteen years of existence under the direction of our lamented founder and his successor we have repaid the 4,600,000 francs ($887,800) of founder's certificates, which are now entirely transformed into association certificates held by the workingmen themselves. We have, in addition, constituted a reserve fund of 460,000 francs ($88,780), and with the profits realized during the past year are about to redeem early issues of association certificates to the amount of 249,951 francs ($48,240.54)."

VALUE OF FOUNDER'S AND ASSOCIATION CERTIFICATES OF THE FAMILISTÈRE SOCIETY OF GUISE, 1880–81 TO 1894–95.

Year.	Founder's certificates canceled and replaced by association certificates.	Certificates outstanding at end of year.		
		Association certificates.	Founder's certificates.	Total.
1880–81	$86,534.64	$86,534.64	$801,265.36	$887,800.00
1881–82	115,784.09	202,318.73	685,481.27	887,800.00
1882–83	89,030.21	291,348.94	596,451.06	887,800.00
1883–84	88,717.47	380,066.41	507,733.59	887,800.00
1884–85	43,094.58	423,160.99	464,639.01	887,800.00
1885–86	47,399.06	470,560.05	417,239.95	887,800.00
1886–87	20,023.37	490,583.42	397,216.58	887,800.00
1887–88	40,102.70	530,686.12	357,113.88	887,800.00
1888–89	78,954.37	609,640.49	278,159.51	887,800.00
1889–90	86,307.86	695,948.35	191,851.65	887,800.00
1890–91	57,183.00	753,131.35	134,668.65	887,800.00
1891–92	23,706.58	776,837.93	110,962.07	887,800.00
1892–93	27,640.50	804,478.43	83,321.57	887,800.00
1893–94	41,098.19	845,576.62	42,223.38	887,800.00
1894–95	42,223.38	887,800.00	.....	887,800.00

In the following series of tables the attempt has been made to make an elaborate analysis of the financial operations of the society since its foundation. They have been compiled directly from the financial reports of the society, the effort being made to so present the facts as to indicate first the receipts and then to trace their application to the various items of expenses and profits. There is given, therefore, first a statement of gross receipts, and then the expenses divided into the two classes of wages and other expenditures. The amount remaining after deducting total expenses from total receipts constitutes gross profits of operation. From this are deducted the fixed charges for depreciation, social work, education, and interest on certificates. The remainder constitutes net profits. The apportionment of these net profits is then shown in detail. A complete financial history of the society is given in these tables. From them it is possible to know exactly how much has been earned and the disposition of receipts to the minutest details.

RECEIPTS OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1894-95.

Year.	From industry proper.	From social institutions, rents, etc.	Total.	Year.	From industry proper.	From social institutions, rents, etc.	Total.
1879-80...	$764,581.97	$88,463.61	$853,045.58	1887-88..	$848,178.10	$110,632.53	$958,810.63
1880-81...	903,450.13	95,793.36	1,059,243.49	1888-89..	742,329.30	131,747.49	874,076.79
1881-82...	881,756.68	98,425.26	980,181.94	1889-90..	792,703.70	150,661.27	943,364.97
1882-83...	787,503.23	97,099.78	884,603.01	1890-91..	794,859.21	178,807.26	973,666.47
1883-84...	679,465.88	91,090.04	770,555.92	1891-92..	791,993.08	199,319.92	991,313.00
1884-85...	668,851.82	101,503.76	770,355.58	1892-93..	768,324.89	192,122.12	960,447.01
1885-86...	680,326.04	106,684.62	787,010.66	1893-94..	774,816.48	191,009.75	965,826.23
1886-87...	669,018.97	107,818.33	776,837.30	1894-95..	800,927.79	196,281.02	997,208.81

EXPENDITURES AND GROSS PROFITS OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1894-95.

Year.	Wages.			Other expenditures.	Total expenditures.	Gross profits.		
	Employees of industrial establishments.	Employees of social institutions.	Total.			Industrial establishments.	Social institutions.	Total.
1879-80.....	$282,516.11	$12,451.70	$294,967.81	$360,928.50	$655,896.31	$181,088.91	$15,160.36	$197,149.27
1880-81.....	348,702.74	12,850.28	361,553.02	457,891.80	819,444.82	224,181.25	15,617.42	239,798.67
1881-82.....	375,425.38	12,755.76	388,181.14	393,195.13	781,376.27	182,464.62	16,341.05	198,805.67
1882-83.....	350,111.08	14,243.81	364,354.89	339,207.14	703,562.03	165,094.16	15,946.82	181,040.98
1883-84.....	334,228.28	15,917.62	350,145.90	285,373.97	635,519.87	117,958.29	17,077.76	135,036.05
1884-85.....	333,544.48	18,454.79	351,999.27	275,041.56	627,040.83	122,019.15	21,295.60	143,314.75
1885-86.....	324,737.60	19,158.69	343,896.29	318,000.55	661,896.84	103,275.29	21,838.53	125,113.82
1886-87.....	318,790.50	19,638.25	338,428.75	287,719.07	626,147.82	133,826.59	16,862.89	150,689.48
1887-88.....	355,071.41	18,931.60	374,003.01	416,143.69	790,146.70	149,969.69	18,694.24	168,663.93
1888-89.....	402,623.17	18,875.12	421,498.29	268,726.53	690,224.82	162,261.82	21,590.15	183,851.97
1889-90.....	387,366.75	18,337.76	405,704.51	383,743.58	789,448.09	125,826.07	28,090.81	153,916.88
1890-91.....	396,624.89	20,363.42	416,988.31	432,862.61	849,850.92	91,312.81	32,502.74	123,815.55
1891-92.....	408,041.20	21,461.29	429,502.49	423,284.16	852,786.65	102,484.80	36,041.55	138,526.35
1892-93.....	387,691.26	21,243.39	408,934.65	398,499.17	807,433.82	118,562.61	34,450.58	153,013.19
1893-94.....	389,402.12	20,951.99	410,354.11	394,431.75	804,785.86	124,337.86	36,702.51	161,040.37
1894-95.....	399,449.73	21,768.14	421,217.87	406,077.14	827,295.01	134,204.56	35,709.24	169,913.80

STATUTORY CHARGES, ETC., PAID BY THE FAMILISTÈRE SOCIETY OF GUISE AND NET PROFITS REMAINING, 1879-80 TO 1894-95.

Year.	Depreciation.	Social institutions.	Distributed to purchasers at cooperative stores.	Education.	Interest on capital stock.	Total.	Net profits remaining for distribution.
1879-80.....	$38,543.72	.....	.....	$3,680.85	$44,390.00	$86,614.57	$110,534.70
1880-81.....	27,399.42	.....	.....	3,778.12	44,390.00	75,567.54	164,231.13
1881-82.....	27,401.53	$960.75	.....	4,822.89	44,390.00	77,575.17	121,230.50
1882-83.....	29,829.20	830.48	$2,232.24	6,636.99	44,390.00	83,918.91	97,122.07
1883-84.....	38,142.90	795.16	2,719.92	6,484.50	44,390.00	92,532.48	42,503.57
1884-85.....	37,567.27	562.98	3,699.98	6,161.54	44,390.00	92,381.77	50,932.98
1885-86.....	47,971.40	545.03	3,965.80	6,064.30	44,390.00	102,936.53	22,177.29
1886-87.....	48,830.14	806.93	4,003.46	5,702.23	44,390.00	103,732.76	48,956.72
1887-88.....	20,716.45	901.50	4,030.40	5,880.78	44,390.00	75,919.13	92,744.80
1888-89.....	22,424.39	899.99	9,753.06	5,707.81	44,390.00	83,174.25	100,677.72
1889-90.....	24,237.90	614.90	13,247.35	6,432.25	44,390.00	88,922.40	64,994.48
1890-91.....	31,562.72	3,337.14	16,403.91	6,803.03	44,390.00	102,496.80	21,318.75
1891-92.....	34,190.36	4,362.22	18,486.48	6,845.76	44,390.00	108,274.82	30,251.53
1892-93.....	32,083.07	6,824.69	17,216.91	6,843.39	44,390.00	107,358.06	45,655.13
1893-94.....	31,890.66	8,899.31	18,563.58	6,618.65	44,390.00	110,362.20	50,678.17
1894-95.....	32,266.38	12,168.72	18,899.79	6,681.72	44,390.00	114,406.61	55,507.19

APPORTIONMENT OF NET PROFITS OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879–80 TO 1894–95.

Year.	Wage earners.						Capital stock.
	Associés.	Sociétaires.	Participants.	Apprentices reserved.	Insurance fund.	Total.	
1879–80	$6,204.95	$4,559.82	$21,138.13	$5,846.36	$10,815.25	$48,564.51	$6,702.89
1880–81	9,248.17	6,005.97	26,839.74	2,861.42	28,903.68	73,858.98	8,256.54
1881–82	8,358.06	5,409.98	22,963.95	1,826.89	25,597.51	64,156.39	6,658.50
1882–83	10,132.11	7,566.37	25,206.38	1,692.42	21,164.00	65,761.28	7,080.20
1883–84	4,649.63	4,989.44	10,868.16	1,024.23	7,207.98	28,739.44	3,138.37
1884–85	6,181.89	7,653.55	11,987.72	1,273.36	7,457.24	34,553.76	3,645.96
1885–86	2,976.64	3,613.15	5,043.09	591.93	2,810.08	15,034.89	1,598.04
1886–87	6,266.13	8,268.31	10,224.37	1,304.10	5,754.30	31,817.21	3,400.27
1887–88	12,159.58	17,413.62	17,973.32	2,754.49	13,140.60	63,441.61	6,116.94
1888–89	20,663.16	18,833.52	11,426.18	2,330.67	16,643.55	69,897.08	5,611.28
1889–90 *	15,303.55	12,779.69	8,718.77	2,292.84	5,988.79	45,083.64	3,662.18
1890–91	5,266.97	3,687.84	2,914.69	900.15	2,052.75	14,822.40	1,166.68
1891–92	7,536.65	5,184.37	4,110.13	1,032.16	3,214.03	21,077.34	1,611.35
1892–93	12,286.38	7,215.30	6,473.61	1,711.91	4,038.33	31,725.53	2,515.76
1893–94	13,948.88	8,452.05	6,772.18	2,272.00	3,806.92	35,252.03	2,756.62
1894–95	15,351.61	8,999.01	7,427.02	2,634.45	4,266.46	38,678.55	2,951.94

Year.	Reserve fund.	Directors.					Total net profits.
		General managers.	Boards of managers and overseers.	Education fund.	Pupils in State schools.	Workingmen for special services.	
1879–80	$27,633.67	$13,264.12	$12,158.81	.....	.....	$2,210.70	$110,534.70
1880–81	41,057.82	19,707.72	18,065.41	.....	.....	3,284.63	a 164,231.13
1881–82	20,088.50	14,547.66	13,335.53	.....	.....	2,424.72	a 121,230.50
1882–83	.....	11,654.69	10,683.51	.....	.....	1,942.39	97,122.07
1883–84	.....	5,100.41	4,675.23	.....	.....	850.12	42,503.57
1884–85	.....	6,111.92	5,602.60	.....	.....	1,018.74	50,932.98
1885–86	.....	887.03	3,326.36	$665.46	$222.00	443.51	22,177.29
1886–87	.....	1,878.28	7,043.53	1,408.71	469.58	939.14	46,956.72
1887–88	.....	3,709.84	13,911.83	2,782.29	927.36	1,854.93	92,744.80
1888–89	.....	4,026.94	15,101.86	3,020.26	1,006.69	2,013.61	100,677.72
1889–90	.....	2,599.71	9,749.59	1,949.30	650.02	1,300.04	64,994.48
1890–91	.....	852.67	3,197.82	639.60	213.27	426.31	21,318.75
1891–92	.....	1,210.11	4,537.82	907.49	302.43	604.99	30,251.53
1892–93	.....	1,826.17	6,848.22	1,369.72	456.65	913.08	45,655.13
1893–94	.....	2,027.08	7,602.27	1,520.07	506.47	1,013.63	50,678.17
1894–95	.....	2,220.27	8,326.02	1,665.20	555.07	1,110.14	55,507.19

a This total does not equal the sum of the items. * The explanation is not known. The figures are given as furnished by the society.

It is apparent, from an inspection of these tables, that the item of "net profits" is somewhat misleading, if this is meant to indicate the earnings of the enterprise over and above operating expenses. Gross profits plus the amount paid in wages constitute the real earnings. Thus, if the last year (1894–95) be taken, it will be seen that the total receipts amounted to 5,166,885.04 francs ($997,208.81). Taking from this the item of 2,104,026.61 francs ($406,077.14), the amount of operating expenses other than wages, and 230,000 francs ($44,390) interest on capital, there remains the sum of 2,832,858.43 francs ($546,741.67) to be distributed either in the way of wages or social expenditures or cash profits. There was paid to auxiliaires as wages the sum of 332,806.45 francs ($64,231.64). If this be subtracted there remain 2,500,051.98 francs ($482,510.03) for distribution among the members proper. The total number of members in that year was 1,041. If there had been an equal division, each would have earned 2,401.59

francs ($463.51). The scheme, however, as has been shown, by no means contemplates an equal division.

The members of the society, as previously stated, are divided into associés, sociétaires, and participants, each class participating to a different extent in net profits. Furthermore, it should be noted that the higher positions are, in general, held by the associés and those next in importance by the sociétaires, so that these classes not only share in profits to a greater extent than the participants, but receive the higher wages. In other words, the system does not include any scheme of equal division of profits, but provides for a systematic attempt to divide benefits in accordance with the length of service of each member, his skill, and the economy which he has displayed in the conservation of his capital.

Were it possible to do so, it would be exceedingly interesting to show the average amounts received each year by members of each class from each particular source of wages, profits, interest, or other participation and the total value of these benefits. Unfortunately the complication of elements involved, such for instance as the fact that members are constantly passing from one class to another, renders it impossible to make such a reduction. Nevertheless it has been possible to construct the following table, which, though partly hypothetical, is yet for the most part based on the actual work of the society, and gives information on this point of almost as great value and accuracy as if the actual average could be obtained.

The three cases are taken of a member entering the society as an associé, as did a number of the original members, of a member entering as a sociétaire, and after the constitutional limit of five years becoming an associé, and of a member entering as a participant, and after the constitutional limit of three and five years, respectively, becoming a sociétaire and then an associé. It is presumed that he earns during the whole time an average salary of 5.50 francs ($1.06) per day during 300 working days, or 1,650 francs ($318.45) per year. Though the rate of 5.50 francs ($1.06) per day is higher than that earned by an average of all employees, it is only a fair average of wages of members who earn much higher wages than auxiliaires. The basis of 300 working days to a year is also eminently fair, as during the period covered the actual number of days worked during the year has always exceeded this number. It is further assumed that none of the certificates received in the way of profits are disposed of, a legitimate assumption, for it is undoubtedly true that certificates are thus retained in the majority of cases; their transference to an outside party is rarely permitted by the society, and if transferred to a fellow member the table would still represent the average case that it purports to do. Starting, then, with this case of a member receiving an average rate of wages, working an average number of days, and passing through each of the three possible phases of membership, it is an easy matter, knowing the rate of profits declared, to trace his economic condition from year to year.

Though the method of apportionment of profits has already been described at length, a few words of further explanation in connection with the actual results obtained will be of use. The receipts of a member from the operations of the society consist of: (1) His wages; (2) the amount of profits apportioned to his wages; (3) the amount of profits apportioned to the certificates of stock owned by him; (4) 5 per cent interest on such certificates; (5) participation in the social institutions maintained by the society, chiefly insurance and old-age pensions and schooling; (6) profits realized by the cooperative store, if patronized by him. In the table, however, only those benefits derived in the way of wages, profits, and interest are considered, as it would be difficult to accurately estimate the value of the other benefits, though they amount to a no insignificant sum. As the receipts of members consist partly of cash and partly of certificates of association stock, the economic condition of a member is represented by both the amount of actual money received each year and the increase in the amount of his certificates. The two columns giving the total cash income during the year and the amount of capital possessed at the end of the year represent, therefore, the summary of the direct pecuniary advantages enjoyed by members.

ESTIMATED PROFITS, CASH RECEIPTS, AND CAPITAL OF A MEMBER OF THE FAMILISTÈRE SOCIETY OF GUISE. 1879-80 TO 1894-95.

ENTERING AS AN ASSOCIÉ.

Year.	Yearly wages.	Profit-sharing value of wages.	Rate per cent of profits.	Profits earned by wages.	Capital stock at end of year.	Profits on capital stock.		Interest on capital (5 per cent).	Total cash income during year.
						Per cent.	Amount.		
1879-80	$318.45	$636.90	15.10	$96.17	$96.17	.....	.....	.....	$318.45
1880-81	318.45	636.90	18.60	118.46	214.63	.93	$0.89	$4.81	324.15
1881-82	318.45	636.90	15.00	95.54	310.17	.75	1.61	10.73	330.79
1882-83	318.45	636.90	15.95	101.59	411.76	.80	2.48	15.51	336.44
1883-84	318.45	636.90	7.07	45.03	456.79	.35	1.44	20.59	340.48
1884-85	318.45	636.90	8.21	52.29	509.08	.41	1.87	22.84	343.16
1885-86	318.45	636.90	3.60	22.93	532.01	.18	.92	25.45	344.82
1886-87	318.45	636.90	7.66	48.79	580.80	.38	2.02	26.60	347.07
1887-88	318.45	636.90	13.68	87.13	667.93	.69	4.01	29.04	351.50
1888-89	318.45	636.90	12.64	80.50	748.43	.63	4.21	33.40	356.06
1889-90	318.45	636.90	8.25	52.54	800.97	.41	3.07	37.42	358.94
1890-91	318.45	636.90	2.62	16.69	817.66	.13	1.04	40.05	359.54
1891-92	318.45	636.90	3.63	23.12	840.78	.18	1.47	40.88	360.80
1892-93	318.45	636.90	5.67	36.11	876.89	.28	2.35	42.04	362.84
1893-94	318.45	636.90	6.21	39.55	916.44	.31	2.72	43.84	365.01
1894-95	318.45	636.90	6.65	42.35	916.44	.33	3.03	45.82	409.65

ENTERING AS A SOCIÉTAIRE.

1879-80	318.45	477.68	15.10	72.13	72.13	.....	.....	.....	318.45
1880-81	318.45	477.68	18.60	88.85	160.98	.93	.67	3.61	322.73
1881-82	318.45	477.68	15.00	71.65	232.63	.75	1.21	8.05	327.71
1882-83	318.45	477.68	15.95	76.19	308.82	.80	1.86	11.63	331.94
1883-84	318.45	477.68	7.07	33.77	342.59	.35	1.08	15.44	334.97
1884-85	318.45	636.90	8.21	52.29	394.88	.41	1.40	17.13	336.98
1885-86	318.45	636.90	3.60	22.93	417.81	.18	.71	19.74	338.90
1886-87	318.45	636.90	7.66	48.79	466.60	.38	1.59	20.89	340.93
1887-88	318.45	636.90	13.68	87.13	553.73	.69	3.22	23.33	345.00
1888-89	318.45	636.90	12.64	80.50	634.23	.63	3.49	27.69	349.63
1889-90	318.45	636.90	8.25	52.54	686.77	.41	2.60	31.71	352.76
1890-91	318.45	636.90	2.62	16.69	703.46	.13	.89	34.34	353.68
1891-92	318.45	636.90	3.63	23.12	726.58	.18	1.27	35.17	354.89
1892-93	318.45	636.90	5.67	36.11	762.69	.28	2.03	36.33	356.81
1893-94	318.45	636.90	6.21	39.55	802.24	.31	2.36	38.13	358.94
1894-95	318.45	636.90	6.65	42.35	802.24	.33	2.65	40.11	403.56

....	318.45	318.45	15.00	47.77	155.09	.75
1882–83	318.45	477.68	15.95	76.19	231.28	.80
1883–84	318.45	477.68	7.07	33.77	265.05	.35
1884–85	318.45	477.68	8.21	39.22	304.27	.41
1885–86	318.45	477.68	3.60	17.20	321.47	.18
1886–87	318.45	477.68	7.66	36.59	358.06	.38
1887–88	318.45	636.90	13.68	87.13	445.19	.69
1888–89	318.45	636.90	12.64	80.50	525.69	.63
1889–90	318.45	636.90	8.25	52.54	578.23	.41
1890–91	318.45	636.90	2.62	16.69	594.92	.13
1891–92	318.45	636.90	3.63	23.12	618.04	.18
1892–93	318.45	636.90	5.67	36.11	654.15	.28
1893–94	318.45	636.90	6.21	39.55	693.70	.31
1894–95	318.45	636.90	6.65	42.35	693.70	.33

The table just given is probably of greater intere
in the report, for it shows in the most precise and dir
cial results of the society from the standpoint of the
ing up its membership. It should be distinctly und
table does not represent merely a possible case, but
experience of the majority of the members of the soci

The present time, as has been said, is one especia
making a computation such as has been done in this
the year 1893–94 came to an end the period covered b
of the society's history—that during which the foun
were being extinguished—and the figures for 1894–95
of the operations of the society under the new régime.

There is an essential difference between these two p
the first the member received in cash only his wages
and profits earned by the certificates held by him, th
by his wages being paid in certificates. The accumu
by him during this period was in a way compulsory.
ever, the last of the founder's certificates were cancel
by association certificates. Henceforth, therefore, the
capital ceased, for though profits on ma

and paid in cash for the surrender of an equal amount of his early issues of certificates, which latter were then reissued to him as certificates of 1894–95, or a total of 2,122.54 francs ($409.65). While cash receipts are now much greater than during the first period, the amount of capital owned by the members must remain the same, or 4,600,000 francs ($887,800). Should the operations of the society increase in importance the actual value of these certificates will of course be greatly increased, or the society is permitted by its constitution to further increase the amount of its capital stock.

Turning now to the general results as shown in these tables, the showing can not but be considered as evidencing a remarkable success from the standpoint of an effort to carry on an important industrial establishment on a cooperative plan and entirely for the benefit of the workingmen there employed. It shows that, according to the actual results achieved, a workingman entering in 1879 at the lowest grade of membership, or as a participant, and then becoming successively a sociétaire and an associé after the statutory length of connection with the society, and receiving during this period the average wages of 1,650 francs ($318.45), has had his cash income increased each year from the original sum of 1,650 francs ($318.45) to 1,829.97 francs ($353.18) in 1893-94, during which time he has also acquired certificates of stock to the value of 3,594.28 francs ($693.70), and that he starts upon the new régime with this amount of capital and receives 2,061.03 francs ($397.78) in cash. If he has entered the society as a sociétaire or an associé, his receipts and the amount of his capital would be still greater. This increase can be due only to a slight extent to the greater prosperity of the industrial work of the society, as gross profits have by no means increased in an equal ratio. The increase in the total receipts of individual members as shown in this table has been, therefore, entirely due to the fact that more and more they have become the owners of the works in which they are employed; and their receipts as owners of capital figure to a constantly increasing extent. The same average wages have, in order to simplify the calculation, been maintained throughout the table. The chances are that the member would have earned considerably greater wages than this during the more recent years, in which case, of course, his receipts would be correspondingly greater. The important point should also be noticed in this connection that these results do not apply only to a selected few. The table giving the increase in membership shows that not only the total but the higher classes of membership are constantly increasing—a greater and greater number thus becoming capital owners and participants in profits.

In addition to this it should be remembered that all members, including even auxiliaires, are at the same time acquiring a right to an old-age pension that ultimately will represent a decided addition to the benefits derived from their connection with the society. The

following table shows the minimum income a representative of each class would enjoy after his retirement on account of old age:

MINIMUM ANNUAL INCOME OF MEMBERS OF THE FAMILISTÈRE SOCIETY OF GUISE, RETIRED ON ACCOUNT OF OLD AGE.

Kind of member.	Years of service.	Annual income.			Kind of member.	Years of service.	Annual income.		
		Minimum pension.	Dividends and interest on capital stock.	Total.			Minimum pension.	Dividends and interest on capital stock.	Total.
Associé	15	$176.02	$56.62	$232.64	Participant	15	$70.45	$44.27	$114.72
	20	176.02	75.48	251.50		20	105.67	63.13	168.80
	25	176.02	94.34	270.36		25	140.89	81.99	222.88
	30	176.02	113.20	289.22		30	176.02	100.85	276.87
	35	176.02	132.06	308.08		35	176.02	119.71	295.73
Sociétaire	15	140.89	50.29	191.18	Auxiliaire	15	70.45	.....	70.45
	20	140.89	69.15	210.04		20	105.67	.....	105.67
	25	140.89	88.01	228.90		25	140.89	.....	140.89
	30	176.02	106.86	282.88		30	176.02	.....	176.02
	35	176.02	125.72	301.74		35	176.02	.....	176.02

The fixing of wages in a cooperative concern is a matter of peculiar importance; for their determination being made by the members themselves, they can elect to receive their awards either in the way of increased wages or larger profits. The retention of the wages system, and the necessity on the part of the society to employ workingmen who are not members, checks, at Guise, any tendency to fix wages unduly high. Nevertheless, since the creation of the society the rate of wages has shown a constant tendency to rise. This is shown in the table that follows. In order to show that this rise is not due to the fact that a larger proportion of skilled workmen (and therefore more highly paid) are employed than formerly, the average daily wages earned each year by the ten workingmen in each of the two principal occupations of molder and setter-up receiving the highest earnings during the year are also given.

AVERAGE DAILY WAGES OF WORKINGMEN OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1894-95.

Year.	Average daily wages.			Year.	Average daily wages.		
	All workingmen.	Ten workingmen earning highest annual wages.			All workingmen.	Ten workingmen earning highest annual wages.	
		Molders.	Setters-up.			Molders.	Setters-up.
1879-80	$0.84	$1.19	$0.98	1887-88	$1.03	$1.58	$1.38
1880-81	.85	1.21	1.01	1888-89	1.04	1.50	1.36
1881-82	.87	1.22	1.03	1889-90	1.02	1.75	1.35
1882-83	.89	1.26	1.06	1890-91	1.05	1.62	1.37
1883-84	.91	1.47	1.08	1891-92	1.00	a 1.64	a 1.36
1884-85	.92	1.39	1.10	1892-93	1.01	a 1.63	a 1.30
1885-86	.95	1.44	1.24	1893-94	.99	a 1.60	a 1.29
1886-87	1.01	1.50	1.31	1894-95	.99	a 1.58	a 1.31

a Average of the twenty workingmen earning highest annual wages.

The following table is introduced to show in greater detail the variation in the rates of wages of employees at the latest date obtainable.

An important fact is brought out by the grouping according to classes of members. The members of the higher classes—associés and sociétaires—receive much higher wages than the participants and auxiliaires, thus adding to the many other advantages they enjoy that of earning greater wages. The distinction between those paid by the month and those paid by the week is maintained because the former represents the office force, the directors of services, etc., and the latter the general run of the shop employees.

WAGES OF MEMBERS OF THE FAMILISTÈRE SOCIETY OF GUISE, BY CLASSES, JULY 1, 1891.

Wages per month.	Members paid by the month.					Wages per week.	Members paid by the week (workingmen proper).				
	Associés.	Sociétaires.	Participants.	Auxiliaires.	All classes.		Associés.	Sociétaires.	Participants.	Auxiliaires.	All classes
$3.86 to $4.83	.....	.....	.....	6	6	$1.93 to $2.90	.....	.....	1	24	25
$5.02 to $6.76	.....	1	.....	8	9	$3.09 to $3.86	.....	2	2	17	21
$6.95 to $9.65	.....	2	3	6	11	$4.05 to $4.83	.....	3	5	19	27
$9.84 to $14.48	2	9	1	13	25	$5.02 to $5.79	1	.....	4	27	32
$14.67 to $19.30	3	.....	3	15	21	$5.98 to $7.72	.....	5	42	67	114
$19.49 to $24.13	2	5	3	5	15	$7.91 to $9.65	.....	6	65	55	126
$24.32 to $28.95	8	8	8	2	26	$9.84 to $11.58	5	9	132	131	277
$29.14 to $33.78	21	6	1	1	29	$11.77 to $13.51	16	28	97	59	200
$34.97 to $38.60	12	6	2	1	21	$13.70 to $15.44	40	53	96	59	248
$38.79 to $48.25	8	6	2	.....	16	$15.63 to $17.37	29	35	44	25	133
$48.44 to $57.90	5	1	.....	1	7	$17.56 to $19.30	22	27	35	23	107
$58.09 to $67.55	.....	1	.....	.....	1	$19.49 to $21.23	12	13	11	10	46
$67.74 to $77.20	2	.....	.....	.....	2	$21.42 or over	8	6	6	.....	20
$77.39 to $96.50	3	1	.....	.....	4						
$96.69 or over	2	.....	1	.....	3						

SOCIAL INSTITUTIONS.

It is more than probable that M. Godin himself never realized what were the most important features of his work. Combined with great business shrewdness, Godin had a distinct leaning toward speculative philosophy. As a result, he had worked out a complete theory of the rights of man; and it was in putting into practical operation these theories that he believed he was most entitled to credit as a social reformer. These rights or principles related to the communization of all the interests of members of a society; to the grouping together of the members in large apartment or tenement houses; to the guarantee to all members, under all conditions, of a minimum amount necessary for their subsistence; to their insurance against accidents and sickness, and their pensioning in old age; to the education of the children in common—not so much because existing educational facilities were lacking as because in that way the children would be taught from their earliest years the beauties and advantages of a common habitation and life—and to the development of mutuality in every possible way. Though not at all necessary incidents to his scheme of profit sharing and cooperation, he has made them integral parts of his whole organization, and seems to have regarded them, especially the familistère idea, as the most important part of his work.

Though referred to repeatedly in the account of the workings of the

society, a description of the character and operations of these social institutions has been left to this place, as it was feared that their consideration at an earlier point would unnecessarily complicate the description of the general plan of the society. They can be grouped under four heads, each of which will be considered in turn:

1. The familistères.
2. Insurance and mutual relief.
3. Education.
4. Cooperative distribution.

THE FAMILISTÈRES.

The familistère is the one feature of the society that has received the most notice from the outside world, and it can without hesitation be said to be the feature the least deserving of attention. The buildings of the society at Guise now comprehend, besides the factories and warehouses, seven groups of constructions, three of which are tenement houses or familistères. In the remaining groups of buildings are comprised a nursery, a theater, two schools, and a public laundry, and baths. The first and main familistère erected consists of a central building and two wings, each of which is quadrangular in form, four stories in height, and incloses a large interior court, paved and roofed over at the height of the building with glass. The second familistère is similar to one wing of the main familistère. Its court is not covered with glass, but is open to the air. The third, a much smaller building, contains no court.

The main familistère, or "social palace" as it is usually called, contains in all 299 tenements, of which 12 are one-room, 201 two-room, 75 three-room, 1 four-room, 6 five-room, 3 seven-room, and 1 eight-room tenements. The second group contains 147 tenements, of which 11 are one-room, 79 two-room, 56 three-room, and 1 five-room tenements. The third contains 19 tenements, chiefly of two and three rooms. The three familistères together contain 465 tenements, with a total of 1,091 rooms. Fifteen rooms of the main building are occupied by the grocery, clothing, drug and other stores, the library, etc. All of the tenements of the first two buildings have balconies on the court side, to which the doors open, this being the only means by which all but the corner ones are reached. The stairways are built in the interior and lead to the exterior balconies. They are placed in the corners. Each story contains separate sets of water-closets for men and women. Artesian wells furnish the water, which rises nearly to the height of the roof, and is distributed to reservoirs from which it descends in pipes having a spigot on each floor. The reservoirs hold from 8,000 to 8,700 liters (2,113 to 2,298 gallons). Good provision has been made for sewerage.

The total cost of construction of the three groups of buildings and the annexes (theater, schools, and laundry) was 2,100,218.60 francs ($405,342.19), or for the familistères alone 1,940,816.37 francs

($374,577.56), or an average cost per tenement, including the annexes, of 3,743.70 francs ($722.53), or per tenement, without annexes, of 3,459.56 francs ($667.70).

Formerly the tenements were rented to the member who offered to pay the highest rent; but the desire of obtaining certain apartments led workingmen in many cases to offer more than they could afford to pay. A change was therefore made, and apartments are now apportioned in the order of the demand made for them, after the applications have been carefully examined by the council on the management of the familistère and approved by the managing council. The rents are by the month and are fixed according to the desirableness of the tenements. The following is a schedule of rents in force in the familistères:

SCHEDULE OF MONTHLY RENTS IN THE FAMILISTÈRES AT GUISE.

Location of tenement.	One room.	Two rooms.	Three rooms.	Four rooms.	Five rooms.	Six rooms.	Seven rooms.	Eight rooms.
LEFT WING.								
First story	$0.88	$1.76	$3.01	$3.89	.....	.....	.....	.....
Second story	1.32	2.64	3.23	4.55	$5.88	$7.20	$8.52	.....
Third story	1.13	2.25	3.05	4.18	5.32	.....	.....	.....
Fourth story	1.05	2.09	2.76	3.81	.....	.....	.....	.....
CENTRAL PORTION.								
First story	1.02	2.05	.....	.....	.....	.....	.....	.....
Second story	1.28	2.57	3.47	4.82	6.10	7.38	8.67	.....
Third story	1.21	2.41	3.23	4.44	.....	.....	.....	.....
Fourth story	1.10	2.21	2.83	3.93	.....	.....	.....	.....
RIGHT WING.								
First story	1.38	2.76	3.71	5.09	.....	.....	.....	.....
Second story	1.55	3.11	4.05	5.63	7.18	8.73	10.29	11.84
Third story	1.39	2.79	3.50	4.90	6.31	.....	.....	.....
Fourth story	1.27	2.55	3.40	4.67	.....	.....	.....	.....
LANDRECIES.								
First story	1.25	2.51	3.59	.....	.....	.....	.....	.....
Second story	1.59	3.18	4.05	5.65	.....	.....	.....	.....
Third story	1.50	2.99	3.76	.....	.....	.....	.....	.....
CAMBRAI.								
First story	1.35	2.70	3.96	.....	.....	.....	.....	.....
Second story	1.59	3.18	4.54	5.89	7.48	9.07	10.66	.....
Third story	1.45	2.90	4.10	.....	.....	.....	.....	.....
Fourth story	1.31	2.62	3.40	.....	.....	.....	.....	.....

The society experiences no trouble in renting all the tenements, there being always a considerable number of applicants on the waiting list. As has been seen, it is obligatory for associés and sociétaires to reside in the familistères. This provision alone of the constitution goes a long way toward insuring that there will never be a lack of tenants. The following tables show for each year the population of the familistères and the total amount received in rents:

POPULATION OF THE FAMILISTÈRES AT GUISE, 1879 TO 1894.

Year.	Inhabitants of familistères.	Year.	Inhabitants of familistères.	Year.	Inhabitants of familistères.	Year.	Inhabitants of familistères.
1879	718	1883	1,241	1887	1,760	1891	*a* 1,820
1880	1,170	1884	1,250	1888	1,798	1892	*a* 1,820
1881	1,204	1885	1,748	1889	1,750	1893	*a* 1,820
1882	1,265	1886	1,765	1890	1,780	1894	*a* 1,820

a Average.

TOTAL RENT PAID IN THE FAMILISTÈRES AT GUISE, 1879-80 TO 1894-95.

Year.	Total rent.	Year.	Total rent.	Year.	Total rent.	Year.	Total rent.
1879-80	$10,551.96	1883-84	$14,419.07	1887-88	$20,695.86	1891-92	$19,381.89
1880-81	12,693.27	1884-85	18,390.24	1888-89	19,705.72	1892-93	19,304.50
1881-82	13,633.37	1885-86	20,320.24	1889-90	19,587.46	1893-94	19,335.16
1882-83	14,512.23	1886-87	20,583.22	1890-91	19,489.70	1894-95	19,530.42

It is an interesting, but at the same time a difficult, task to determine the effect of this grouping of a large number of families under the same roof. From the standpoint of the material welfare of the inhabitants, conditions in the familistères compare favorably with those of the village of Guise. A comparison of the vital statistics of the familistères and of Guise is made in the following table. An average for the period covered shows not only a higher birth rate but a decidedly lower death rate among both the children and adult portion of the population.

POPULATION, BIRTHS, AND DEATHS IN THE VILLAGE OF GUISE AND IN THE FAMILISTÈRES, 1879 TO 1891.

VILLAGE OF GUISE.

Year.	Population.	Births.	Deaths by age periods.							
			Less than one year.		One year and less than ten.		Ten years and over.		Total.	
			Number.	Per 1,000 of population.	Number.	Per 1,000 of population.	Number.	Per 1,000 of population.	Number.	Per 1,000 of population.
1879	5,550	128	34	6.13	24	4.32	100	18.02	158	28.47
1880	5,600	150	33	5.89	18	3.22	92	16.43	143	25.54
1881	5,610	164	23	4.10	14	2.50	86	15.33	123	21.93
1882	5,642	167	26	4.61	22	3.90	97	17.19	145	25.70
1883	5,675	160	26	4.58	29	5.11	96	16.92	151	26.61
1884	5,700	154	23	4.03	11	1.93	112	19.65	146	25.61
1885	5,729	164	40	6.98	31	5.41	97	16.93	168	29.32
1886	5,740	147	32	5.57	32	5.57	106	18.47	170	29.61
1887	5,765	131	28	4.86	23	3.99	97	16.82	148	25.67
1888	5,782	148	28	4.84	26	4.50	120	20.75	174	30.09
1889	6,250	170	55	8.80	18	2.88	21	3.36	94	15.04
1890	6,373	185	43	6.75	15	2.35	26	4.08	84	13.18
1891	6,415	177	45	7.02	15	2.34	60	9.35	120	18.71
Average	5,833	157	34	5.75	21	3.66	85	14.64	140	24.05

FAMILISTÈRES.

Year.	Population.	Births.	Less than one year.		One year and less than ten.		Ten years and over.		Total.	
			Number.	Per 1,000 of population.	Number.	Per 1,000 of population.	Number.	Per 1,000 of population.	Number.	Per 1,000 of population.
1879	718	44	7	9.75	6	8.35	14	19.50	27	37.60
1880	1,170	42	10	8.55	6	5.13	9	7.69	25	21.37
1881	1,204	40	11	9.14	4	3.32	13	10.80	28	23.26
1882	1,265	43	6	4.74	2	1.58	19	15.02	27	21.34
1883	1,241	48	8	6.45	10	8.06	16	12.89	34	27.40
1884	1,250	41	1	.80	4	3.20	24	19.20	29	23.20
1885	1,748	76	8	4.58	14	8.01	20	11.44	42	24.03
1886	1,765	67	4	2.27	12	6.80	19	10.76	35	19.83
1887	1,760	74	5	2.84	6	3.41	17	9.66	28	15.91
1888	1,798	62	14	7.79	7	3.89	20	11.12	41	22.80
1889	1,750	65	11	6.28	5	2.86	.....	.....	16	9.14
1890	1,780	52	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
1891	1,820	56	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Average	1,482	55	b 8	b 5.43	b 7	b 4.85	b 15	b 10.91	b 30	b 21.19

a Not reported. b Not including the years 1890 and 1891, not reported.

Statistics, however, can throw but a one-sided light upon the considerations involved in the organization of domestic life as existing in the familistères. It is the moral and psychological effects upon the inhabitants themselves that are of the greatest importance. It may be pardonable to dwell at some length upon this feature of the society, as it is on this account that the society as a whole has been more often condemned than praised.

The description of his impressions, given by a member of the Société Belge d'Économie Sociale who in 1891 made a visit to the familistère of Laeken, the conditions of which are in every respect similar to those at Guise, represents the type of the most hostile criticism that has been directed against the familistère. "Attempt," he says, "to fix the impression that this collection of institutions engenders. In spite of the prosperity that is visible everywhere among the workingmen who live in the familistère, in spite of the comfortable and ingenious arrangement that can be remarked even in the smallest details, that which the visitor carries away is an impression of sadness, of oppression. The familistère of Laeken is a superb barrack, but yet a barrack. It is an ideal Fourier's convent, but everyone does not care to be an inmate of a convent. An exasperating uniformity, a lack of freedom, of independence, the sensation of an inflexible rule bringing everything to a level, impresses you gradually with sadness. The walls seem impregnated with ennui."

Whatever the opinion of one may be concerning the justness of this criticism, and it is a case where each one must form an opinion for himself, the result should not be allowed to influence the judgment concerning the merits of the whole organization. One can quite easily condemn the familistère and yet admire the ingenuity of the scheme through which the workingmen have become the owners of the plant in which they work and by which the principle of cooperation has been introduced throughout the workings of the society. To one studying in detail the organization of the society it is evident that the familistère idea is but an incidental feature, and that it is immaterial to the workings of the system whether the employees are housed under one roof or in individual cottages. But to Godin the familistère was considered as the most important part of his work. It was his hobby. Though his works were situated in the outskirts of a small country village, where land was abundant and there was no necessity whatever for the erection of huge tenements, Godin deliberately chose this type, believing that under all conditions the community of life thus created by bringing all or the greater portion of the employees of an establishment under the same roof represented the ideal type of the constitution of society. It is unnecessary to say that in so doing he acted contrary to the whole trend of modern thought in regard to the best methods of housing the working classes. The importance that he attached to this idea is seen in the great attention given to it in his

Solutions Sociales and in all the details of the organization of the society. The associés and sociétaires are thus required to live in the familistères; and the policy pursued in the instruction of the children was to have this idea constantly in view.

The familistère, therefore, should not be regarded as constituting the work of the society. This has too often been done. It requires a great deal of study to understand the workings of an elaborate scheme such as this is; but, if made, it is seen that the familistère idea is but an unessential part as far as the practical working of the whole society is concerned.

Two important features in connection with the familistère are the laundry and the allotment of land to the members for gardening purposes. It has been the policy of the society to group around the familistères institutions ministering to all the needs of the inhabitants. The conditions of tenement-house life made it extremely undesirable that clothes should be washed inside the buildings. Contemporaneous with the erection of the familistère, therefore, there was constructed a building called the buanderie, containing a swimming pool, baths, and rooms for the washing, drying, and ironing of clothes. Here members can do their own washing or hire others to do it for them.

The society possesses considerable land immediately adjoining the works. This it has divided into lots of from 1 to 3 ares (1,076.4 to 3,229.2 square feet) each, which are rented to members for vegetable gardens. From 500 to 600 members are in this way able to raise their own vegetables. The annual rent is from 1.25 to 5 francs (24 to 97 cents) per are (1,076.4 square feet). This privilege seems to be one highly prized. A very pleasant park on high land adjoining the grounds of the familistère is maintained at the expense of the society. A library of nearly 3,000 volumes is at the disposal of members free. The members are also encouraged to form societies for mutual amusement and cultivation, and there have been formed a musical, a gymnastic, a shooting, a fencing, an archery, and other societies. A commodious theater has been erected that is utilized for assemblies of all kinds, and during the winter months is occupied twice a month by traveling theatrical troupes.

INSURANCE AND MUTUAL RELIEF.

As one would expect, insurance and mutual aid institutions play a prominent part in the social work of the society. The idea of the mutual duties of members to each other is emphasized in every possible way. "One for all and all for one" is the motto of the society and the basis of the whole theory upon which it has been organized, and certainly there is no better opportunity for the exercise of mutuality than that afforded by the care of old workingmen and the aid of the sick and injured. The pensioning of old workingmen and the guaranty of a minimum subsistence to all members, as has been seen, is

not deemed by the society as a privilege accorded to its members, but as a natural right to which labor is entitled in a degree scarcely second to that of receiving wages. The expense of accomplishing these objects, therefore, is counted as a legitimate item of expense in the cost of operation to be met before even the payment of interest on founder's certificates. Insurance against sickness and accidents, however, is put upon an entirely different basis. For this purpose all members and employees are organized into various mutual aid societies, in which membership is obligatory and which are supported, for the most part, by the dues of members. The society stands pledged by its constitution to insure the operation of these societies, and in actual practice it has frequently been necessary for it to supplement their receipts by grants from its common fund. Four distinct societies have been organized to cover this field of insurance and aid in case of sickness:

1. Society for the guaranty of a minimum subsistence to members and for the pensioning of old or incapacitated employees.

2. Mutual aid society for the insurance of employees against sickness.

3. Mutual aid society for the insurance of women inhabiting the familistères against sickness.

4. Mutual aid society for the supply of medicines and medical supplies to inhabitants of the familistères in case of sickness.

As the constitutions and funds of these societies are entirely distinct, one from the other, their separate consideration will be necessary. The results of their practical operation, however, can be presented statistically in the same tables.

SOCIETY FOR THE GUARANTY OF A MINIMUM SUBSISTENCE TO MEMBERS AND FOR THE PENSIONING OF OLD OR INCAPACITATED EMPLOYEES.

The first society, that for the guaranty of a minimum subsistence and for the pensioning of old or incapacitated employees, is of much the greatest interest. In describing its organization, as well as that of the other societies, the greatest precision can be obtained by translating freely the essential portions of their constitutions. The following are the important portions of the constitution of the society under discussion:

The resources of the society are derived from: (1) A payment from the gross profits of the familistère society of a yearly sum equal to 2 per cent of the total amount paid in wages to members of the society. (2) The profits apportioned to the wages of auxiliaires.

Every person employed in the establishments of the familistere society is placed under its protection, and in case of incapacity incurred during his connection with the society is accorded a pension. This pension is granted to associés, sociétaires, and participants, and, in certain cases, to auxiliaires.

After fifteen years of service the right to a pension is regulated as follows: For associés, men and women, the pension is fixed at two-fifths

of their wages, and for sociétaires at one-third of their wages; provided, however, that the monthly pension of associés shall be not less than 75 francs ($14.48) for the men and 45 francs ($8.69) for the women, and of the sociétaires not less than 60 francs ($11.58) for the men and 35 francs ($6.76) for the women. The pensions for participants and auxiliaires are fixed by the following schedule:

DAILY PENSIONS PAID TO PARTICIPANTS AND AUXILIAIRES BY THE MINIMUM SUBSISTENCE AND PENSION FUND OF THE FAMILISTÈRE SOCIETY OF GUISE.

Years of continuous service.	Men.	Women.
After 15 years	$0.19	$0.14
After 20 years	.29	.19
After 25 years	.39	.24
After 30 years	.48	.29

In the intermediate periods the amount of the pension is proportional to the length of service. The right of a member to a pension is suspended if, without an authorization of the board of directors, he accepts a salaried position outside of the society.

In case the resources of the fund permit, the board of directors can, on the authorization of the general assembly, increase the amount of the pension paid in cases where especially meritorious services have been rendered to the society.

If the years of service entitling a member to a pension have been accomplished at various times, each voluntary departure and each year of absence diminishes the pension paid by 2 centimes ($\frac{4}{10}$ cent) per day. The years of service performed before the age of 20 years count as half. The time passed in military service is counted as an involuntary absence and no reduction is made in consequence.

A member able to work, who retires voluntarily from the society or who is expelled or severs his connection with the society for any reason other than the lack of work, loses all right to a pension.

If before fifteen years of service an employee of the society, who is without means of support, is incapacitated for work through an accident received while at work, he is entitled to the pension of one having served twenty years. If the accident occurs after fifteen years of service, he is entitled to the pension of one having served thirty years. The indemnities accorded to those incapacitated before fifteen years of service, and not due to an accident received while at work, are left to the discretion of the insurance committee and the board of directors.

To associés and sociétaires who have been sick more than three months there is granted during one year a sum equal to their wages.

The society guarantees a minimum subsistence to its members. In cases, therefore, where the wages of a household does not equal this sum the deficiency is paid from the insurance fund. The minimum daily subsistence is fixed by the following schedule:

For a man or woman	$0.48
For a widower or widow, head of a family	.29
For a widow without a family	.19
For a man sick in a family	.19
For a woman sick in a family	.14
For children over 16 years of age (each)	.19
For children from 14 to 16 years of age (each)	.14
For children from 2 to 14 years of age (each)	.10
For children under 2 years of age (each)	.05

These last have, in addition, a right to the nursery. In calculating the amount of earnings of a family, in order to determine by what amount the total family income falls below the minimum of subsistence, the gains of all the members of the family, whether from wages or from the various insurance funds, are taken into account. These daily gains that can not be absolutely determined are valued according to the following schedule:

Males from 14 to 16 years of age	$0.14
Males from 16 to 18 years of age	.19
Males from 18 to 20 years of age	.29
Males over 20 years of age	.43
Females from 14 to 17 years of age	.10
Females from 17 to 21 years of age	.14
Females over 21 years of age	.19

It is considered that a mother with five children unable to work can gain nothing; one with four children, 25 centimes (5 cents); one with three children, 50 centimes (10 cents); one with two children, 75 centimes (14 cents); and one with one child unable to work can earn 1 franc (19 cents) per day. If, however, it is shown that she does earn something, it is taken into account. The minimum of subsistence is accorded to widows and orphans whose husbands and fathers have been in the service of the society at least fifteen years. For those whose husbands and fathers have died before having served that length of time, the right to aid and of living in the familistères is limited to one year. In case of sickness the rate of subsistence is only paid to those whose payment from the insurance fund against sickness does not amount to that sum and only for one month after they have stopped work.

The orphans of associés and sociétaires are taken care of by the insurance committee, which, after the approval of the board of directors, places them in families where they receive all necessary care and education.

The protection of insurance extends also to families of participants and auxiliaires in cases of exceptional misfortune and when the board of directors think such action to be necessary.

Every individual, after he has been pensioned, ceases to pay dues to the insurance fund against sickness, and will likewise cease to participate in its benefits, the pension being considered as taking its place. In special cases, however, permission can be granted for a continued participation.

MUTUAL AID SOCIETY FOR THE INSURANCE OF EMPLOYEES AGAINST SICKNESS.

The organization of the society for the insurance of employees against sickness is as follows:

The resources of the society are derived from: (1) The payment as dues by each employee of the familistère society inhabiting the familistères of one-half of 1 per cent, and by each employee not inhabiting the familistères of 1 per cent of the amount he or she receives in wages. If the average monthly earnings of a member do not equal 100 francs ($19.30) for the head of a family, his payment is calculated as if it were that amount. If his average monthly earnings exceed 150 francs ($28.95), the member has the option of paying his percentage on either

the full or on two-thirds of the amount of his wages. This rate can be raised or lowered according to the financial requirements of the fund. (2) The product of fines levied by the familistère society on workingmen for infringement of rules or breakage of material. (3) A grant by the familistère society of an amount within the discretion of the managing council.

Every employee of the familistère society, male or female, on commencing work, either in the shops, the offices, or the stores of the society, is enrolled as a member of the organization for insurance against sickness, and the payment of dues by him to the sick fund is obligatory. An exception, however, is made in the case of women inhabiting the familistères, inasmuch as they have an organization of their own.

After six months, during which regular payments have been made, every member, on becoming incapacitated for work through sickness or accident, is entitled to receive during a period not to exceed one year: (1) The professional attendance of physicians appointed and paid by the familistère society; (2) the payment of a daily sick benefit, the minimum amount of which is fixed as follows: For members less than 45 years of age on entering the employ of the society, during the first three months, two times, during the second three months, one and one half times, and during the remaining six months, one time the amount of the monthly dues they have been paying; for members over 45 years of age on entering the employ of the society, during the first three months, one and one-fourth times, during the second three months, one time, and during the remaining six months, three-fourths of the amount of the monthly dues that they have been paying.

In the case of sickness or injury occurring to an employee before he has made payments during six months, the patient receives a daily sick benefit equal to the amount of his monthly dues. If the incapacity for work continues more than one year the payment of a sick benefit ceases, and if the patient is declared to be permanently incapacitated he is pensioned as provided for in the scheme of old-age and invalidity pensions.

MUTUAL AID SOCIETY FOR THE INSURANCE OF WOMEN INHABITING THE FAMILISTÈRES AGAINST SICKNESS.

The organization of the society for the insurance of women inhabiting the familistères against sickness is as follows:

The resources of the society are derived from: (1) The payment as dues by each woman 14 years of age or over inhabiting the familistères of 50 centimes (10 cents) per month, or 2 per cent of her earnings when the amount thus determined is superior to 50 centimes (10 cents); in no case, however, can the dues exceed 3 francs (58 cents); (2) the product of fines for infraction of rules of the familistères; (3) a grant of a lump sum by the familistère society, which can in no case exceed the total amount paid in as dues.

Every woman over 14 years of age and inhabiting the familistères is enrolled as a member of the organization for insurance against sickness, and the payment of dues by her is obligatory. After six months, during which regular payments have been made, each member on becoming incapacitated for work through sickness is entitled to receive (1) the professional attendance of a physician and of a midwife of her own selection; (2) the payment of a daily sick benefit, the amount of which is fixed as follows: During the time she is confined to her bed,

to one and one-half times, and during the period of her convalescence, or of any sickness not entirely incapacitating her for light work, to three-fourths of the amount of the monthly dues that she has been paying. In case of childbirth, the higher rate is paid during the first nine days and the lower rate during the remaining time of her illness.

MUTUAL AID SOCIETY FOR THE SUPPLY OF MEDICINES AND MEDICAL SUPPLIES TO INHABITANTS OF THE FAMILISTÈRES IN CASE OF SICKNESS.

It would seem that the supplying of medicines was a legitimate duty of the other societies, and it is difficult to see what necessity there was for the creation of a societiy for that purpose. However, it was determined to keep such service separate. Its organization is as follows:

The resources of the society are derived from: (1) A payment as dues by every inhabitant of the familistère over 14 years of age of 50 centimes (10 cents) per month. (2) A grant of a lump sum by the familistère society which can in no case exceed the total amount paid in as dues.

After six months, during which regular payments have been made, members are entitled to receive from the fund, both for themselves and their families in case of sickness, medicines, medical supplies, and instruments that have been ordered by the physician or midwife. Such provision, however, is made only in cases where the sickness is of sufficient severity as to incapacitate the patient for work. The fund also defrays the civil expenses of burials of members or members of member's families.

The administration of these various societies is in the hands of a committee for each society, elected by its members for a term of one year. The managing council exercises a general control over all their operations. It is not necessary to go into the details of the organization of these committees nor of the methods of management of their affairs. The practical workings of these societies are shown in the series of tables that follow. There are a number of points of great importance to be noticed in connection with this showing. The first of these is that there has been a failure to correctly estimate the relationship between receipts and probable expenses. It is a difficult thing to correctly calculate the mathematical basis upon which any insurance or beneficial scheme must rest. The difficulty lies in the fact that, while receipts remain nearly stationary, expenditures must necessarily increase as the scheme and its members become older. The situation of affairs at Guise is thus set forth by the general manager in his annual report for 1893–94:

If the financial and industrial situation is good, by no means the same thing can be said regarding our insurance funds. In effect, all of our relief funds at Guise have an excess of expenditures over receipts.

The expenditures of the fund for pensions and necessary subsistence have exceeded receipts by 7,031.78 francs ($1,357.13).

The insurance fund against sickness has had an excess of expenditures amounting to 5,118.37 francs ($987.85). We had in bank June

30, 1893, a surplus of 1,333.76 francs ($257.42), which had been transformed into a deficit of 3,784.61 francs ($730.43) on June 30 last.

The fund for the insurance of women against sickness has also an excess of expenditures. There remained in bank on June 30, 1894, a balance of 12,069.69 francs ($2,329.45), a reduction of 1,563.80 francs ($301.81) as against the preceding year.

The fund for the supply of medicines has still a deficit, which during this year reached 2,343.20 francs ($452.24), and which the society had to cover, as it did the deficits for previous years.

* * * * * * *

The fund for pensions and minimum subsistence, which, at the date of creation of the society, June 30, 1880, had a cash balance of 108,846.94 francs ($21,007.46) has had this amount successively increased until June 30, 1893, when it amounted to 290,552.40 francs ($56,076.61), an increase of 181,705.46 francs ($35,069.15), or an average annual increase of about 14,000 francs ($2,702). The annual increase was greater in the earlier and smaller in the later years, until, during the year 1892–93, it amounted to only 2,032.51 francs ($392.27), and in the last year, 1893–94, there was a deficit of 7,031.78 francs ($1,357.13).

The permanent fund of certificates which last year amounted to 855,178 francs ($165,049.35) reached this year about 878,033 francs ($169,460.37), an increase of 22,855 francs ($4,411.02), * * * which makes the total assets of the fund 1,161,553.62 francs ($224,179.85); it was 1,145,725.60 francs ($221,125.04) last year, or a gain of 15,828.02 francs ($3,054.81), the difference resulting from the increase in the amount of certificates held and the diminution in the cash balance on hand.

* * * * * * *

It is necessary to be prudent and to seek to establish an equilibrium between our budgets of insurance and benevolence.

* * * * * * *

I should also call attention to the other insurance funds * * * of which the deficits are permanent. There, also, it is necessary to economize—it is necessary to exercise efficacious supervision and suppress the abuses. * * *

I shall count on the insurance committees to appreciate the importance of their mission, and not to permit a renewal of certain violations and certain abuses which are prejudicial to our funds and also injurious to the health of their associates and to the welfare of their families.

The abuses here spoken of were the too great leniency and liberality displayed in the allotting of benefits.

The experience of Guise has thus been commented upon, not because it represents an aggravated case of miscalculation, for it is quite otherwise, but because it may serve to emphasize the necessity of an ample provision for the future increase of disbursements. There has been a failure to do this in the case of a great many insurance schemes organized in France and elsewhere. At Guise, however, great credit is due to the policy that has been pursued from the start, in the case of the pension fund, of building up a permanent fund of certificates. Thus, in spite of the note of warning sounded by the general manager, and the fact that disbursements exceed ordinary receipts, the fund has continued to increase and the condition of the society to show an improvement.

RECEIPTS AND EXPENDITURES OF THE MINIMUM SUBSISTENCE AND PENSION FUND OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1893-94.

Year.	Total receipts.	Expenditures.					Balance at end of year.
		Pensions.	Minimum subsistence.	Temporary aid.	Medical attendance and medicines.	Total.	
1879-80	a $41,630.06	$1,254.50	$945.70	$868.50	$44.70	$3,113.40	$38,516.66
1880-81	35,907.03	1,344.66	988.03	951.49	100.47	3,384.65	71,039.04
1881-82	32,939.43	2,243.47	1,140.87	2,067.55	273.90	5,725.88	98,252.59
1882-83	30,775.17	4,512.96	2,309.43	1,042.89	356.76	8,282.04	120,745.72
1883-84	21,887.38	5,449.78	2,473.74	1,029.70	611.16	9,564.38	133,068.72
1884-85	20,157.00	5,512.48	1,505.79	1,657.91	1,121.62	9,797.80	143,427.98
1885-86	16,288.65	5,388.98	2,388.96	1,668.16	1,264.83	10,710.93	149,005.70
1886-87	17,476.51	5,862.61	2,525.97	2,654.90	1,225.14	11,668.62	154,813.59
1887-88	27,317.20	6,200.07	2,386.01	2,572.99	1,180.36	12,339.43	169,791.36
1888-89	31,648.06	7,673.73	2,383.98	1,206.50	1,171.47	12,435.68	189,003.74
1889-90	22,234.65	8,459.50	2,588.86	1,125.22	1,317.26	13,490.84	197,747.55
1890-91	24,004.56	9,726.84	2,266.47	1,239.62	1,817.52	15,050.45	206,701.66
1891-92	20,943.01	10,671.95	2,072.42	1,616.33	1,549.09	15,909.79	211,734.88
1892-93	17,712.00	12,071.09	1,985.11	1,714.65	1,548.88	17,319.73	212,127.15
1893-94	18,264.34	13,444.74	2,377.59	2,191.68	1,607.47	19,621.48	210,770.01

a Including $25,600.23 in fund at time of organization of society.

RECEIPTS AND EXPENDITURES PER EMPLOYEE OF THE MINIMUM SUBSISTENCE AND PENSION FUND OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1893-94.

Year.	Total employees.	Total receipts per employee.	Average expenditures for—						Total expenditures per employee.
			Pensions.		Minimum subsistence.		Temporary aid.		
			Total pensioners.	Average pension.	Families aided.	Average per family.	Families aided.	Average per family.	
1879-80	1,190	a $34.98	9	$139.39	17	$55.63	22	$39.48	$2.62
1880-81	1,440	24.94	12	112.06	19	52.00	25	38.06	2.35
1881-82	1,500	21.96	21	106.83	24	47.54	55	37.59	3.82
1882-83	1,387	22.19	39	115.72	46	51.51	31	33.64	5.97
1883-84	1,293	16.93	46	118.47	28	88.35	46	22.38	7.40
1884-85	1,275	15.81	49	112.50	37	40.70	50	33.16	7.68
1885-86	1,217	13.38	45	119.76	45	53.09	38	43.90	8.80
1886-87	1,130	15.47	52	112.74	51	49.53	50	41.10	10.33
1887-88	1,237	22.08	53	116.98	41	58.20	42	61.26	9.98
1888-89	1,495	21.17	61	125.80	42	56.76	40	30.16	8.32
1889-90	1,471	15.12	67	126.26	43	60.21	42	26.79	9.17
1890-91	1,502	15.98	77	126.32	40	56.66	47	26.37	10.02
1891-92	1,498	13.98	86	124.09	35	59.21	32	50.51	10.62
1892-93	1,364	12.99	92	131.21	38	52.24	49	34.99	12.70
1893-94	1,364	13.39	104	129.28	39	60.96	61	35.93	14.39

a Including amount in fund at time of organization of society.

OPERATIONS OF THE SICK INSURANCE FUND FOR EMPLOYEES OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1893-94.

Year.	Receipts.	Expenditures.	Members sick.	Total days sick.	Average days sick per member sick.	Average expenditure per day sick.
1879-80	a $8,281.09	$4,877.35	442	9,678	21.90	$0.50
1880-81	7,094.35	8,293.99	750	16,456	21.94	.50
1881-82	9,218.37	10,261.19	931	20,360	21.87	.50
1882-83	8,396.75	8,350.15	708	17,035	24.06	.49
1883-84	7,407.41	6,859.45	642	14,496	22.58	.47
1884-85	7,113.68	8,064.89	670	15,236	22.74	.53
1885-86	6,771.62	7,143.51	602	12,904	21.44	.55
1886-87	6,853.24	5,540.45	523	10,830	20.71	.51
1887-88	7,194.14	5,139.59	577	11,252	19.50	.46
1888-89	6,806.54	6,133.47	764	12,965	16.97	.47
1889-90	6,680.94	8,201.76	1,001	17,150	17.13	.48
1890-91	7,146.49	8,328.77	896	17,033	19.01	.49
1891-92	7,673.54	8,496.80	896	17,281	19.29	.49
1892-93	7,372.45	8,060.39	698	16,507	23.65	.49
1893-94	7,641.59	8,029.44	697	18,617	26.71	.46

a Including $2,392.44 in fund at time of organization of society.

OPERATIONS OF THE SICK INSURANCE FUND FOR WOMEN INHABITING THE FAMILISTÈRES OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1893-94.

Year.	Receipts.	Expenditures.	Members sick.	Total days sick.	Average days sick per member sick.	Average expenditure per day sick.
1879-80	a$2,169.12	$641.01	111	2,341	21.09	$0.27
1880-81	613.95	955.69	160	4,400	27.50	.22
1881-82	753.65	1,238.59	215	5,698	26.50	.22
1882-83	1,028.33	1,012.93	146	3,736	25.59	.27
1883-84	1,082.94	937.91	129	4,040	31.32	.23
1884-85	1,311.92	1,064.66	190	5,117	26.93	.21
1885-86	1,412.03	1,030.69	211	5,398	25.58	.19
1886-87	1,394.07	954.29	183	4,798	26.22	.20
1887-88	1,410.46	1,036.64	194	4,722	24.34	.22
1888-89	997.18	1,279.94	202	6,172	30.55	.21
1889-90	1,458.72	1,450.80	278	6,903	24.83	.21
1890-91	1,399.01	1,186.88	184	5,084	27.63	.23
1891-92	1,262.02	1,406.64	235	6,490	27.62	.22
1892-93	1,257.98	1,206.28	184	4,756	25.85	.25
1893-94	1,302.93	1,604.75	210	7,426	35.36	.22

a Including $1,367.48 in fund at time of organization of society.

OPERATIONS OF THE MEDICAL SUPPLIES FUND OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1893-94.

Year.	Receipts.	Expenditures.	Sick members receiving supplies.	Average expenditure per member sick.	Year.	Receipts.	Expenditures.	Sick members receiving supplies.	Average expenditure per member sick.
1879-80	a$2,877.61	$641.18	247	$2.60	1887-88	$1,230.17	$1,340.99	565	$2.37
1880-81	1,026.27	739.78	469	1.58	1888-89	1,540.46	1,868.72	741	2.52
1881-82	850.29	1,422.01	583	2.44	1889-90	1,913.65	2,386.54	827	2.89
1882-83	834.04	1,121.01	465	2.41	1890-91	1,933.64	2,376.24	759	3.13
1883-84	899.38	1,269.76	473	2.68	1891-92	1,957.53	2,015.66	792	2.55
1884-85	1,106.39	1,822.84	611	2.98	1892-93	1,520.11	1,949.83	831	2.35
1885-86	1,217.78	1,567.66	610	2.57	1893-94	1,608.83	2,061.07	844	2.44
1886-87	1,216.59	1,459.35	606	2.41					

a Including $1,393.55 in fund at time of organization of society.

RECEIPTS AND EXPENDITURES OF THE SICK INSURANCE AND MEDICAL SUPPLIES FUNDS OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1893-94.

Year.	Receipts.	Expenditures.	Cash on hand at end of year.	Year.	Receipts.	Expenditures.	Cash on hand at end of year.
1879-80	a$13,327.82	$6,159.54	$7,168.28	1887-88	$9,834.77	$7,517.22	$5,978.08
1880-81	8,734.57	9,989.46	5,913.39	1888-89	9,344.18	9,282.13	6,040.13
1881-82	10,822.31	12,921.79	3,813.91	1889-90	10,053.31	12,039.10	4,054.34
1882-83	10,259.12	10,484.09	3,588.94	1890-91	10,479.14	11,891.89	2,641.59
1883-84	9,389.73	9,067.12	3,911.55	1891-92	10,893.99	11,919.10	1,616.48
1884-85	9,531.99	10,952.39	2,491.15	1892-93	10,150.54	11,216.50	550.51
1885-86	9,401.43	9,741.86	2,150.72	1893-94	10,553.35	12,295.26	b1,191.40
1886-87	9,463.90	7,954.09	3,650.53				

a Including $5,153.47 in fund at time of organization of society. b Deficit.

EDUCATION.

The care and education of the children of members is considered by the society as one of the most important features of its work. Next to the familistère, education was the object of the greatest solicitude to Godin. As early as 1860 he commenced the creation of educational institutions along substantially the same lines as they are now conducted.

Like the expenditures required for the pensioning of old workingmen and the guaranty of a minimum subsistence, the entire expense of education is made a charge on the receipts of the society before any interest or profits are paid. The great attention to education receives its explanation in the fact that the society intends, through the instruction of the children under its supervision, to make of its schools a means of perpetuating in future generations the same ideas concerning mutuality and the association that actuated its founders. The following extracts from the constitution and by-laws indicate clearly this policy: "The administration," says the constitution, "ought above all to make sure that the children receive good moral instruction with the special object of developing in them the sentiment of the duties of solidarity that exists between members. It should seek to make them understand the grandeur and benefits of the association in order that in the future they may become worthy successors in the work of their predecessors." Again, in the by-laws, a paragraph reads: "The fact should never be lost sight of that the object of the instruction ought to be to form for the society men and women valuable to it both on account of their moral character and intellectual attainments. The children, therefore, should be accustomed from their very earliest years to contribute by their good conduct to the charms of a common habitation and to the general welfare. * * * The effort should be made to instill in the minds of the children the love of the society, the love of the principles which have given birth to the present constitution and by-laws, and a desire to aid in their practical application."

To carry out these ideas the constitution made the following provisions concerning the organization of instruction. Institutions for the instruction of children are organized into five divisions or grades:

1. The nourricerie, or nursery, the object of which is to aid the mothers in the care of their infants until they have reached the age of 2 years.

2. The pouponnat, or the first infants' garden, an institution designed to give all the necessary care and amusement to children who are between the ages of 2 and 4 years.

3. The bambinat, or second infants' garden, for children between the ages of 4 and 6 years, where the first instructive exercises will be commenced.

4. Schools which will insure to all children of members of the society good primary instruction until they have reached the age of 14 years.

5. Finally, the administration makes provision for the further education of those students who have shown special aptitudes and faculties.

The education and instruction provided by the society is wholly gratuitous. The wages of instructors and all others expenses are paid by the society. The amount thus expended for each year can not be less than 25,000 francs ($4,825). This amount may be increased by the society, but in case the whole amount appropriated is not expended

the balance is not carried to the next year, but to a special educational fund reserved for emergencies. The system thus created means, practically, the removal of the children, at least during their earlier years, from their parents during a greater part of the day and their elevating in common. It is unnecessary to call attention to the tremendous power thus given to the society to educate believers in the principles practiced at Guise. Handsome and well-arranged school buildings have been erected, and, without going into details, competent teachers and suitable courses of study have, apparently, been provided. The nourricerie seems to be a particularly well-conducted institution. It answers all the requirements of a well-conducted crêche, an institution existing in many manufacturing centers of France and Germany, but almost unknown in this country. Mothers, on going to work in the morning, leave their babies here, where they are fed, bathed, put to sleep or amused until the evening, when the mothers return to take them away. The following table shows the expenditure of the society each year for the care and education of children of members:

EXPENDITURES OF THE FAMILISTÈRE SOCIETY FOR THE CARE AND EDUCATION OF CHILDREN AT GUISE, 1879-80 TO 1894-95.

Year.	Nursery.	Infant schools.	Primary schools.	Total.	Year.	Nursery.	Infant schools.	Primary schools.	Total.
1879-80 ..	$1,351.18	$516.40	$1,588.51	a$3,680.86	1887-88 .	$1,334.12	$1,306.48	$3,240.18	$5,880.78
1880-81 ..	1,334.25	473.85	1,970.02	a4,163.73	1888-89 .	1,375.38	1,357.49	2,974.94	5,707.81
1881-82 ..	1,351.89	630.13	2,834.83	a4,822.89	1889-90 .	1,263.89	1,384.23	3,214.67	5,862.79
1882-83 ..	1,393.50	767.65	4,475.84	6,636.99	1890-91 .	1,067.43	1,586.95	3,317.29	5,971.67
1883-84 ..	1,268.82	567.21	4,648.47	6,484.50	1891-92 .	1,136.94	1,513.75	3,355.59	6,006.28
1884-85 ..	1,513.20	709.99	3,938.33	6,161.52	1892-93 .	1,280.72	1,444.99	3,338.88	6,064.59
1885-86 ..	1,641.67	842.61	3,580.01	6,064.29	1893-94 .	1,099.74	1,390.30	3,321.96	5,812.00
1886-87 ..	1,308.45	863.49	3,530.31	5,702.25	1894-95 .	1,179.78	1,175.59	3,494.97	5,850.34

a This total is greater than the sum of the items. The explanation is not known. The figures are given as published by the society.

COOPERATIVE DISTRIBUTION.

The creation of the first store for the sale of necessary articles of consumption to employees of the establishment dates from the foundation of the first familistère in 1859. Previous to 1880 the store remained but a branch of the general enterprise of M. Godin, and whatever profits were realized were retained by him. On the organization of the society the principle of cooperation was introduced in this department as well as in the conduct of the industry proper. Though an independent cooperative society was not created, the service of distribution was made a distinct branch of the general undertaking, and, as its accounts have been kept separate from those relating to the industrial branch, its operations can be studied apart. Since the foundation of the society this service of distribution has not ceased to prosper. New departments have from time to time been added until, at the present time, there can be purchased through it every article necessary for the ordinary life of the members of the society.

As at present organized, the service of distribution includes two departments: (1) That of production and (2) that of sales. The first is divided into two sections, viz, a bakery and a charcuterie (an establishment for the preparation of hog products). The charcuterie was in existence prior to the organization of the society. The bakery was established in 1886. It is equipped with two furnaces or ovens and other necessary appliances, affording a productive capacity of from 700 to 800 kilograms (1,543 to 1,764 pounds) of bread per day. The flour used is first and second class, mixed in equal proportions. The price of bread is regulated by the minimum price charged by independent bakers of the village of Guise. The average annual profit realized is about 3.81 per cent. This is exclusive of the profits that may be realized by the sale of the bread through the sales department, as the bread is not sold at the bakery, but is transferred to the sales department. Previous to 1887 a dairy had been maintained by the society for supplying milk to members. It was, however, abandoned in that year, and milk is now purchased at wholesale rates from a neighboring dairyman and retailed through the sales department.

The sales department is divided into the following sections:

1. Dry goods and miscellaneous, including such categories as dry goods proper, ready-made articles of wearing apparel, hats, shoes, furniture, stationery, watches and jewelry, etc.
2. Groceries, including groceries proper, kitchen utensils, beer, wine, and other liquors.
3. Food products, such as meats, fruits, vegetables, etc.
4. Fuel.
5. Administration of the bath and wash rooms.
6. Administration of the tavern, casino, etc.
7. Auxiliary service for the sale of liquors wherever permitted.

The sale of furniture and of watches and jewelry was commenced in 1889.

The following tables, giving the total value of products and of articles of each class sold during each year since the foundation of the society, will show the progress in importance of the Cooperative Distributive Association:

VALUE OF PRODUCTS OF THE COOPERATIVE DISTRIBUTIVE ASSOCIATION OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1894-95.

Year.	Charcuterie.	Dairy.	Bakery.	Total.	Year.	Charcuterie.	Dairy.	Bakery.	Total.
1879-80	$5,010.58	$799.21	.....	$5,809.79	1887-88	$6,033.32	.....	$7,280.55	$13,313.87
1880-81	4,940.50	749.69	.....	5,690.19	1888-89	7,223.69	.....	8,270.83	15,494.52
1881-82	5,424.08	749.04	.....	6,173.12	1889-90	9,347.95	.....	9,607.84	18,955.79
1882-83	6,376.25	574.37	.....	6,950.62	1890-91	10,624.82	.....	14,114.05	24,738.87
1883-84	5,822.02	520.58	.....	6,342.60	1891-92	10,945.76	.....	17,525.37	28,471.13
1884-85	6,033.84	616.86	.....	6,650.70	1892-93	11,421.78	.....	15,637.68	27,059.46
1885-86	6,532.13	644.13	.....	7,176.26	1893-94	11,527.08	.....	15,120.68	26,647.76
1886-87	6,278.73	547.82	$6,991.78	13,818.33	1894-95	12,425.34	.....	14,670.90	27,096.24

INCOME FROM SALES, ETC., OF THE COOPERATIVE DISTRIBUTIVE ASSOCIATION OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1894-95.

Year.	Wearing apparel.	Groceries.	Green groceries, meats, fruits, etc.	Restaurant and casino.	Beer consumed at home.	Fuel.	Baths and wash houses.	Total.
1879-80...	$9,282.56	$38,147.29	$14,752.14	$8,641.80	.....	$6,330.65	$757.21	$77,911.65
1880-81...	10,001.06	41,475.38	15,036.94	9,579.91	.....	6,194.51	812.29	83,100.09
1881-82...	11,426.68	40,890.85	15,515.70	9,820.14	.....	6,203.48	875.05	84,791.90
1882-83...	12,339.70	38,087.44	17,060.01	7,810.56	.....	6,377.32	912.52	82,587.55
1883-84...	13,080.86	34,589.16	15,859.94	6,714.29	.....	5,472.01	954.71	76,670.97
1884-85...	15,467.99	39,213.80	15,651.79	6,416.39	.....	5,279.13	1,084.42	83,113.52
1885-86...	15,846.31	39,636.40	16,927.03	6,872.09	.....	5,949.51	1,132.96	86,364.30
1886-87...	15,213.30	40,602.62	16,448.22	7,079.66	$196.24	6,456.48	1,238.60	87,235.12
1887-88...	15,969.71	41,901.70	16,549.27	5,936.38	657.24	7,345.72	1,576.66	89,936.68
1888-89...	24,004.03	49,834.90	21,061.41	6,862.91	1,002.77	7,675.84	1,599.91	112,041.77
1889-90...	28,769.57	57,677.13	26,155.10	6,303.77	1,929.12	8,608.40	1,630.72	131,073.81
1890-91...	33,214.59	70,068.18	29,317.94	7,639.10	2,366.53	12,899.90	1,505.64	a 157,065.83
1891-92...	34,404.34	79,450.50	29,289.79	7,905.02	2,895.96	13,331.44	1,588.24	168,865.29
1892-93...	33,796.51	76,941.57	28,755.10	6,831.26	2,998.68	12,066.94	1,678.50	163,068.56
1893-94...	33,307.58	76,430.66	29,515.56	6,841.39	3,233.22	11,799.55	1,484.59	162,612.55
1894-95...	34,348.40	77,629.28	31,569.46	6,237.07	3,176.48	12,423.36	1,377.80	166,761.85

a This total is greater than the sum of the items. The explanation is not known. The figures are given as published by the society.

The administration of the service of distribution is under the general control of the board of directors and the familistère committee. A general director of the service is appointed, who is the executive head of this branch of the industry. The personnel required for the service numbers between fifty and sixty persons, the greater part of whom are women. With rare exceptions, purchases are made directly from producers, without the intervention of middlemen. For the supply of certain articles the society is affiliated with the Federation of the Cooperative Societies of France.

The stores are for the most part located in rooms on the ground floor of the main familistère. The stores for the green groceries, meats, and fruits, the tavern, etc., are, however, installed in separate buildings. Every member of the society, every employee of the establishment, or even persons utter strangers to the society, have free access to the stores and can participate equally in the profits. After all expenses have been paid the net profits remaining are divided among the purchasers in proportion to the value of their purchases during the year. Prior to 1881-82 these profits were distributed in cash. In that year the system was changed so that 50 per cent of the profits were distributed in cash and the remainder as a credit for the future purchase of articles. This was done in order to encourage members to make their purchases at the stores of the society. In 1888-89 the amount distributed as a credit for future purchases was raised to 85 per cent and only the remaining 15 per cent distributed in cash.

In order to participate in profits purchasers must secure a pass book, in which all purchases are entered. Purchases must be paid for in cash. The financial results of the operations of this branch of the general industry are shown in the following table. In explanation it should be said that "capital invested" represents only the value of the stock carried, and that the rent of the rooms occupied is included in expenses.

FINANCIAL OPERATIONS OF THE COOPERATIVE DISTRIBUTIVE ASSOCIATION OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1894-95.

Year.	Capital invested.	Total sales.	Profits.			Per cent of profits of—	
			Distributed in cash.	Distributed in purchases.	Total.	Capital invested.	Total sales.
1879-80	$17,325.38	$77,911.65	$7,074.61	.....	$7,074.61	40.83	9.08
1880-81	13,071.77	83,100.09	7,531.62	.....	7,531.62	57.62	9.06
1881-82	12,409.63	84,791.90	7,903.00	$396.00	8,299.00	66.88	9.79
1882-83	12,699.63	82,587.55	5,708.05	1,836.26	7,544.31	59.41	9.13
1883-84	12,410.32	76,670.97	5,385.42	2,719.92	8,105.34	65.31	10.57
1884-85	13,112.88	83,113.52	5,901.81	3,699.98	9,601.79	73.22	11.55
1885-86	13,750.09	86,364.30	6,331.76	3,965.80	10,297.56	74.89	11.92
1886-87	16,530.72	87,235.12	6,418.93	4,003.44	10,422.37	63.05	11.95
1887-88	15,275.02	89,936.68	6,211.72	4,030.40	10,242.12	67.05	11.39
1888-89	16,973.19	112,041.77	3,972.09	9,753.06	13,725.15	80.86	12.25
1889-90	16,285.03	131,073.81	4,650.31	13,247.35	17,897.66	109.90	13.65
1890-91	18,734.47	157,065.83	5,396.43	16,330.66	21,727.09	115.97	13.83
1891-92	22,825.34	168,865.29	5,723.97	18,355.75	24,079.72	105.50	14.26
1892-93	26,142.66	163,068.56	5,017.00	16,967.80	21,984.80	84.10	13.48
1893-94	25,140.99	162,612.55	5,327.51	18,324.06	23,651.57	94.08	14.54
1894-95	25,171.02	166,761.85	5,255.28	18,681.37	23,936.65	95.10	14.35

As has been stated above, only holders of pass books in which purchases are entered can participate in profits. Other sales are treated as are purchases in private stores. The following table gives interesting details concerning the extent to which the stores are patronized, the amount purchased on pass books, the total number of pass books in use each year, the average value of sales, and the average amount of profits realized per pass book:

SALES AND PROFITS TO HOLDERS OF PASS BOOKS OF THE COOPERATIVE DISTRIBUTIVE ASSOCIATION OF THE FAMILISTÈRE SOCIETY OF GUISE, 1879-80 TO 1894-95.

Year.	Number of pass books.	Sales on pass books.	Net profits.	Per cent of profits of sales on pass books.	Average yearly sales per—		Average profits distributed per pass book.
					Pass book.	Family.	
1879-80	60	$4,023.59	$7,074.61	175.83	$67.06	$96.34	$117.91
1880-81	88	5,945.91	7,531.62	126.67	67.57	74.57	85.59
1881-82	110	7,643.08	8,299.00	108.58	69.48	72.77	75.45
1882-83	594	39,516.48	7,544.31	19.09	66.53	78.04	12.70
1883-84	699	54,363.36	8,105.34	14.91	77.77	83.39	11.60
1884-85	765	62,790.11	9,601.79	15.29	82.08	79.95	12.55
1885-86	819	66,018.60	10,297.56	15.60	80.61	88.54	12.57
1886-87	808	65,744.32	10,422.37	15.85	81.37	100.18	12.90
1887-88	864	68,324.88	10,242.12	14.99	79.08	95.42	11.85
1888-89	1,004	92,681.24	13,725.15	14.81	92.31	108.67	13.67
1889-90	1,128	114,201.34	17,897.66	15.67	101.24	121.42	15.87
1890-91	1,335	138,719.58	21,727.09	15.66	103.91	123.66	16.27
1891-92	1,400	151,700.41	24,079.72	15.87	108.36	130.31	17.20
1892-93	1,605	147,785.28	21,984.80	14.88	92.08	.....	13.70
1893-94	1,630	147,937.71	23,651.57	15.99	90.76	.....	14.51
1894-95	1,691	155,173.18	23,936.65	15.63	90.58	.....	14.16

The steady progression, not only in the number of pass books that are in use but in the average amount purchased on each book and by each family, shows, in a striking way, the constantly increasing extent to which the benefits of cooperation in the purchasing of supplies have been utilized. The increase is not due to the increased number of members of the society, for that has been but slight during recent years. The steady increase in the amount purchased by each family, though undoubtedly due in large part to the fact that fewer purchases are made elsewhere, would tend strongly to indicate the increasing material welfare of the members.

COOPERATIVE DISTRIBUTION.

BY EDWARD W. BEMIS, PH. D.

Many forms of cooperation are very little developed in the United States. We have none of the credit associations so common in Germany, nor the raw-material societies for the cooperative purchase of the raw materials used in small manufacture, also common in Germany. We do not have the cooperative labor gangs or societies for the collective undertaking of contracts for public and private work which are common in Russia and Italy, while our cooperative manufacturing is insignificant compared with the beginnings in Great Britain and France. The cooperative cooper shops in Minneapolis are only moderately successful. Of the eight shops existing in 1886 only the following four survive. Sharing in the general depression, none of these have been able to pay any dividends during the past three years other than 5 per cent interest on the capital in the case of the two older companies and 6 per cent in the case of the two others.

The Cooperative Barrel Manufacturing Company, started in 1874 with a small paid-up capital and a membership of less than a score, had a membership of 120 in 1885 and a capital of $50,000 in 1888. It now does a business of about $150,000 a year.

The North Star Barrel Company, started in 1877, is now doing a business of about $195,000 a year on a capital of $43,350. The membership was 77 in 1885, is 51 now, and will soon be reduced to 45. The capital, however, in 1885, was only $30,800.

The Northwestern Barrel Company, started in 1881, does a business of about $100,000 on a capital of $18,500. The capital has increased somewhat since 1886, but the membership has declined from 45 to 37.

The Hennepin Barrel Company, started in 1880, now does a business of about $275,000 a year on a capital of $47,200, and has a membership of 59. The capital was $38,000 in 1886, and the membership 52.

The introduction of machinery has led to less need of skilled coopers, and, therefore, many have withdrawn. All the members work in their own shops, and each of the latter employs from twenty to thirty machine tenders and boys. The cooperative shops could do all the work for the Minneapolis mills, but the latter refuse to give it all to them even at lower prices. There may be a fear of combination if the cooperative shops once secured all the trade. In the interesting account of the movement in the first report of the Minnesota bureau of labor statistics, 1887–88, it is stated that the cooperative workers, being capitalists, do not care to strike, and, therefore, the journeymen in the private

shops can not do so. When wages fall, the cooperative workers can stand it better than the others. Attempts to establish pooling arrangements between all the shops have always failed, sometimes through the refusal of a cooperative shop to unite, and sometimes through the breaking of the agreement by some private shop. The following very significant statement, taken from that report, deserves insertion, as it applies equally to many illustrations of cooperative distribution: "It may be worth while to remark that cooperation is not a religion with these coopers. They are not experimenting for the benefit of humanity. One of them might withdraw with his savings and set himself up as the proprietor of a boss shop without the slightest twinge of conscience or the remotest chance of being charged with the sin of apostacy. The president of one of the smaller shops had formerly been a member of one or two of the older and larger establishments, and withdrew to found a shop of his own in another town. He failed in the business for some reason, and came back to cooperation in Minneapolis."

Mr. William Angus, a graduate student of the University of Minnesota, who has supplied many of the facts in this statement, writes: "The cooperatives do not pay themselves quite as high wages during the busy season as the private companies pay their men; but the wages amount to more by the year, as the private companies generally rush business for a time and then close up entirely. The wages of nonstockowning employees are in every case exactly the same as those of stockowning employees for doing the same work; but in very few cases are the nonstockowning employed at the same work. They are generally busied with running the machinery, engines, etc., rough out-of-door work, and, of course, here do not receive as much pay."

Outside of these associations scarcely anything of the kind exists in America. The few small cooperative coal mines in Illinois are said by the State mine inspectors to have a bad effect on wages in their neighborhood by their readiness to sell coal at any price when trade is dull. The so-called cooperative furniture factories of Rockford, Ill., are really joint stock companies, with small shares, widely scattered among employees. Disaster has recently overtaken many of those at Rockford. Where every stockholder has an equal vote there is some tendency to keep up wages, even ruinously, at the expense of profits.

On the other hand, our farmers have made as great strides as those of Holland, Denmark, France, or Germany in the matter of cooperative creameries, and fire and tornado insurance companies. Our many very large fraternal life insurance companies are also cooperative. Our cooperative banks, or building and loan associations, have already been investigated by the Department. (*a*)

The present study, however, deals with another great branch of the cooperative movement which, beginning in England over fifty years

a Ninth Annual Report of the Commissioner of Labor, 1894.

ago, has still its greatest development there, but is now able to boast of a large growth in all the countries of Western Europe and in Italy. (*a*)

Cooperative distribution, the term commonly applied to the work of consumers' societies, is almost entirely confined, in many States, to the simple form of securing trade discounts for the members of farmers' organizations who concentrate their purchases of farm machinery and supplies and household goods in selected stores and factories. Such methods, which are most largely developed in France, are common with the Patrons of Husbandry, sometimes called the Grange. This organization, starting in 1866, now numbers about 250,000 members, pretty generally scattered through the northern and western States. The secretaries of the State granges of such widely separated States as Oregon, Nebraska, Ohio, Connecticut, and Rhode Island report extensive buying of this kind.

In Ohio, from 25 to 33 per cent is saved by buying for cash and concentrating trade with 45 business houses of manufacturers and jobbers. The Rhode Island Grange publishes a list of 14 Providence and 10 Newport houses that give discounts ranging from 5 per cent on gloves, hosiery, millinery, and harnesses to 15 per cent on watches and jewelry and 20 per cent at a restaurant. Through purchasing agents, also, implements, seeds, and fertilizers have been obtained in large and small quantities at a great saving and grain has been purchased by several granges in car-load lots with equally satisfactory results. In Connecticut, the State purchasing agent ships grain, coal, etc., to the granges, where they are divided among the members. The Watertown grange has its own storehouse and a spur track running to it. The Wallingford grange does a business of $18,000 a year.

The supreme secretary of the Patrons of Industry, another farmers' organization in the northern States, west of New England, writes that their local associations, in many cases, establish cooperative stores. "In other cases they contract with the local dealer for their supplies, while in other cases they buy direct from the manufacturer. The amount of goods handled by the organization as such has been enormous. The saving has been, at a fair estimate, at least 10 per cent on all purchases, the expense of handling also being very light." Another organization, the Farmers' Alliance, which has been strongest in the South and Southwest, has pursued similar methods. The Alliance papers of North Carolina and other States publish a whole page list of articles that can be obtained at designated prices through the State business agency. In these and other ways combinations to charge unreasonably high prices for binding twine, fertilizers, barbed wire, and other farm supplies have been broken or forced to be more moderate in their demands.

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a See paper by Aneurin Williams in the proceedings of the Twenty-eighth Annual *Cooperative Congress* of Great Britain, held in May, 1896, at Woolwich.

THE COOPERATIVE STORE.

That form of cooperative distribution or consumers' societies, known as the cooperative store, had its American beginnings with the so called union stores in New England from 1847 to 1859. Limiting dividends and selling a little above cost, these stores either failed, or were transformed into private enterprises. None survive; yet 769 of these stores were started, and 350 of them, mostly in New England, reported in 1857 a capital of $291,000 and an annual trade of $2,000,000.

The next important effort was made by the Patrons of Husbandry, organized in 1866. All their early grange stores seem to have followed the methods of the union stores and to have met with a similar fate.

In 1864 the Rochdale methods of cooperative storekeeping were introduced in a Philadelphia store by twenty-three members who had secured from Rochdale, England, the constitution and other documents of the famous Rochdale Pioneers. In the second quarter of 1866 the sales were $7,751.34, and three branches were too hastily established. The undue ratio of expense to trade, and especially the lack of interest in the movement, led to its speedy failure in November. The oldest cooperative store in this country, at the time of its failure in 1896, was the Danvers Cooperative Union Society, with a capital of $5,500 in the shoe manufacturing town of Danvers, Mass. At first, however, from 1865 to 1869, it sold goods exclusively to its members and at cost, after the methods of the other union stores already referred to. It did not adopt the Rochdale plan until 1869. The failure is ascribed to incompetent agents, and was so disastrous as to leave the stockholders only 25 per cent of their investment.

The longest successful American trial of the Rochdale plan seems to have been by the Cooperative Store Company at Silver Lake, in the town of Kingston, Mass., which began June 14, 1875. A small store in a small place of nearly stationary population and with a trade of only $9,517.92 and a capital of $1,850 in 1895–96, or nearly the same as in 1886, its continued success under one manager seems to prove the presence there of what has been found far more important than even the Rochdale methods—a cooperative spirit, which is thus defined in the copies of the by-laws as printed in every edition for many years: "A true cooperator has three qualities—good sense, good temper, and good will—good sense to dispose him to make the most of his means; good temper to enable him to associate with others, and good will to incline him to serve them and be at trouble to serve them, and go on serving them, whether they are grateful or not in return, caring only that he does good, and finding it a sufficient reward to see that others are benefited through his unthanked exertions."

This last enterprise, like eight or nine others still in successful operation, owed its origin to the third wave of cooperative enthusiasm which swept over New England and a few other sections in the seventies, and

which was chiefly fostered at that time by the Sovereigns of Industry during its brief history from 1874 to 1880; but the Rochdale methods, then popularized, were at once taken up by a few grange stores, such as the Johnson County Cooperative Association at Olathe, Kans. During two years the Sovereigns of Industry kept two paid lecturers in the field, who devoted much of their time to instructing the people in cooperation.

In 1877, reports from 94 councils, mostly in New England, New York, New Jersey, Pennsylvania, and Ohio, showed an average membership of 77, an average capital of $884, and a total trade of $1,089,372, on which the consumers were estimated to have saved 14 per cent through cooperation. Perhaps one-half of these stores sold at market prices and returned the profits to the consumers as dividends on their trade, as in the Rochdale system.

The next epoch in the cooperative movement came with the rapid rise of the Knights of Labor, during the years 1884 to 1888. Scores of cooperative workshops, coal mines, and factories were started all over the country, without any connection with cooperative stores or knowledge of cooperative methods elsewhere. Most of these experiments failed. The few successful ones were transformed into joint-stock or private enterprises.

The same fate has befallen the numerous cooperative stores started by the farmers' associations known as the Wheel and the Alliance in the southern States from 1886 to 1892.

In 1886 a fairly exhaustive investigation of cooperation was made by five graduates of the Johns Hopkins University. (*a*) Not including the partially cooperative enterprises among the Mormons and at Allegan, Mich., to be considered later, these investigators found 30 stores outside of New England. Of these, 17, for the most part probably small ones, made no report of their business then, and seem to be extinct now or transformed into private enterprises. Seven others that reported a trade of $357,673.78 in 1886 have also disappeared. Of these seven the only ones that did a business of over $32,000 were the Philadelphia Industrial Cooperative Society, which had a trade of $168,816.54, and the Trenton Cooperative Business Association, with a trade of about $72,000.

Of 27 cooperative associations that have started in New Jersey since 1873, only 8 are now running, and in Texas cooperation has very greatly declined. (*b*)

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a History of Cooperation in the United States. Volume VI of the Johns Hopkins University Studies in Historical and Political Science. By Edward W. Bemis, Albert Shaw, Amos G. Warner, Charles Howard Shinn, and Daniel R. Randall. Baltimore, 1888.

b For information on the New Jersey societies, prior to 1895, see the Report of the New Jersey Bureau of Labor Statistics for 1895, Part V. For the Texas, Trenton, and Philadelphia societies, see How to Cooperate, by Herbert Myrick, Orange Judd *Company, New* York, 1892, pp. 78–82, 97–105, 121–126.

On the other hand, there are some favorable reports. The Trenton (N. J.) Cooperative Society, the Johnson County Cooperative Association, at Olathe, Kans., and the Hammonton (N. J.) Fruit Growers' Union had a trade of $49,958.20, $210,588.79, and $45,940.45, respectively, in 1886, and of $51,300, $231,141.63, and $61,427.43 in 1895–96. Sixteen associations which have started since 1886 in 15 places, viz, Pittsburg, Pa.; Dover, Raritan, and Phillipsburg, N. J.; Jamestown, N. Y.; Ishpeming, Mich.; Zumbrota, Minn.; Eureka, Emporia, Overbrook, Wakefield, and Green, Kans., and Los Angeles, Santa Paula, and Poplar, Cal., had a trade in 1895–96 of about $450,000.

The total cooperative trade outside of New England, so far as reported, was about $900,000 in 1895, as contrasted with about $1,000,000 in the associations making even partial returns in 1886. Although it is believed that no large societies have been overlooked, it is quite possible that as complete a survey of the field as was made in 1886 might reveal a small growth in the cooperative trade outside of New England during the past ten years. Nearly all the associations that have been reached in this inquiry give dividends on trade, but in Kansas these dividends are very small at present, owing to the agricultural depression there which is causing the failure of many private stores.

In New England the outlook is more encouraging. While 6 of the stores that had a trade of $134,000 in 1886 are now closed, the trade of the remaining 13 of those in existence in the former period has grown from $479,900 to $978,951.48, and 9 new stores report a trade of $251,409.49. The total cooperative trade in New England, almost entirely on the Rochdale plan, is thus over twice as great as ten years ago. To the figures for the western and southern States should be added 134 labor exchanges, with 6,000 members, pursuing methods to be described later.

The stores following the Rochdale plan, so thoroughly tested by experience, manage business in substantially the following way:

1. Small shares of stock are issued, usually limited to $5. One can, in most stores, become a member by paying only $2 of this, in addition to an initiation fee or entrance dues of 50 cents, but in that case the new member must let his profits remain in the business until 1 and sometimes 5 or more shares are paid for. Most associations will buy back the shares of withdrawing members at par or permit their transfer to another. The former method is preferred by some associations, in order to prevent possible sacrifice of stock below par by needy and ignorant members.

2. The number of shares one can hold is usually limited to 100 and sometimes to 40.

3. Each stockholder has but one vote.

4. Goods are sold at the market price. The old method of selling at cost has been found weak in two respects. It often leads to sales below cost, because of miscalculation as to expenses and depreciat-

Then the attempt to sell at cost arouses the antagonism of private traders, who will sell staple articles below cost as an advertisement, and thus draw away the more ignorant and undeveloped cooperators. Even though the attempt be made, however, to sell at the market price, that price is often somewhat reduced in a place where there is a strong cooperative association, because of the efforts of private traders to retain their business.

5. Stockholders receive only a fixed rate of interest. In the East the average rate is 6 per cent and in the rest of the country it is 7 per cent.

6. Surplus earnings are divided among the customers according to their purchases. Usually stockholders receive twice as large a percentage as other customers.

7. Advertising, expensive rent, and some expenses of clerk hire and delivery of light goods are supposed to be saved by the presence of the cooperative spirit. In many American cooperative stores, however, orders are taken and goods delivered as in private stores.

The two tables following show the rate per cent of dividends returned to members on their trade for the year 1895–96—the first in 20 New England societies, the second in 13 societies outside of New England.

In 1895 the New England societies paid 6 per cent on their share capital, with the following exceptions in Massachusetts: The Arlington, at Lawrence, which paid 5 per cent; the Industrial, at New Bedford, which paid 5; the Hampden County, at Springfield, which changed to 6 in January, 1896; the Lawrence Equitable, which paid 5; the Lowell, which paid 4; the German Association, at Lawrence, which paid 7; the Plymouth Rock Cooperative Company, at Plymouth, which paid 8, and the Harvard, at Cambridge, and the Beverly associations, which, as usual, did not attempt to pay anything. Of the societies outside of New England those at Santa Paula, Cal., and Olathe and Wakefield, Kans., paid 8, 9, and 10 per cent interest, respectively, on their capital. Eight per cent was also paid at Ishpeming, Mich., and Green, Kans., 7 at Overbrook, Kans., and 6 at Cadmus, Kans., Trenton, N. J., and Jamestown, N. Y. Five was paid elsewhere, save at Los Angeles, Cal., and Emporia and Eureka, Kans., where nothing was paid in 1895, although 10 per cent has usually been paid at Eureka and 6 to 8 at Emporia.

DIVIDENDS ON MEMBERS' TRADE IN TWENTY NEW ENGLAND ROCHDALE SOCIETIES, 1895-96.

Name of society.	Location.	Dividends (per cent).
Lewiston Cooperative Society (a)	Lewiston, Me	5.0
Lisbon Falls Cooperative Association	Lisbon Falls, Me	9.0
Sabattus Cooperative Association	Sabattus, Me	12.0
Farmers' and Mechanics' Exchange	Brattleboro, Vt	5.0
Arlington Cooperative Association	Lawrence, Mass	7.0
Beverly Cooperative Association	Beverly, Mass	5.0
Cambridge Cooperative Society	Cambridge, Mass	7.5
Cooperative Store Company	Silver Lake, Kingston, Mass	5.5
First Swedish Cooperative Store Company	Quinsigamond, Worcester, Mass	10.0
German Cooperative Association	Lawrence, Mass	7.0
Hampden County Cooperative Association	Springfield, Mass	3.0
Harvard Cooperative Society (a)	Cambridge, Mass	7.0
Industrial Cooperative Association	New Bedford, Mass	3.0
Knights of Labor Cooperative Boot and Shoe Association.	Worcester, Mass	10.0
Lawrence Equitable Cooperative Society	Lawrence, Mass	7.0
Lowell Cooperative Association	Lowell, Mass	10.5
Plymouth Rock Cooperative Company	Plymouth, Mass	6.0
Riverside Cooperative Association	Maynard, Mass	5.5
West Warren Cooperative Association	West Warren, Mass	7.5
Woodlawn Cooperative Association	Pawtucket, R. I	2.8
Average dividend		6.8

a This society differs from the Rochdale plan in that it pays no interest on stock.

DIVIDENDS ON MEMBERS' TRADE IN THIRTEEN ROCHDALE SOCIETIES OUTSIDE OF NEW ENGLAND, 1895-96.

Name of society.	Location.	Dividends (per cent).
Trenton Cooperative Society	Trenton, N. J	8.0
Jamestown Cooperative Supply Company	Jamestown, N. Y	6.5
Ishpeming Cooperative Society	Ishpeming, Mich	6.0
Alliance Cooperative Association	Green, Kans	.....
Greenwood County Cooperative Association	Eureka, Kans	.....
Johnson County Cooperative Association	Olathe, Kans	4.0
Lyon County Alliance Exchange Company	Emporia, Kans	2.0
Osage County Cooperative Association	Overbrook, Kans	.....
Patrons' Cooperative Association	Cadmus, Kans	7.0
Wakefield Alliance Cooperative Association	Wakefield, Kans	2.0
Poplar Cooperative Association	Poplar, Cal	.....
Santa Paula Cooperative Association	Santa Paula, Cal	3.0
Socialists' Cooperative Store and Productive Association.	Los Angeles, Cal	7.0
Average dividend		3.5

The average rate of dividend on the trade of the members in 20 New England Rochdale stores in 1895 was 6.8 per cent, and in 13 outside of New England 3.5 per cent. According to the returns from 1,036,992 English cooperators, as published in the English Labor Gazette for June, 1896, only 1.3 per cent of the members received 5 per cent or less, while 14.2 per cent received from 5 to 10 per cent, 54 per cent of the members received from 10 to 15 per cent, and the remaining 30.5 per cent received over 15 per cent. In the 33 American associations just referred to, only 8 received over 7 per cent, and 4 of these over 9, the highest dividend of 12 per cent being given by an association with $31,000 trade, at Sabattus, Me.

The larger dividends in the English associations may be partly

to a larger excess of retail over wholesale prices abroad; but it is also in part, at least, due to the larger expenses here. The Oldham Equitable and the Oldham Industrial cooperative societies do not take orders for goods, and deliver comparatively few. Hence, they did business in 1895 with an expense of only 4.4 per cent and 6.6 per cent of their trade, respectively, and declared dividends on their trade of 15 per cent. The Manchester Equitable Society, on the other hand, taking orders and delivering goods, had an expense of 10 per cent on trade, and so could pay only 10 per cent dividends on the trade of its members. In all of the 1,486 cooperative societies of Great Britain, reported in the proceedings of the Twenty-eighth Annual Cooperative Congress of that country, the expenses in 1895, aside from interest and depreciation, were 6.2 per cent of the total business of £34,224,815 ($166,555,062.20).

The expenses of the 15 New England societies from which returns on this head were obtained averaged 10.9 per cent of their trade of $1,008,977.24. If the Harvard society, which does very little delivering to its college members, and the Sovereigns' Trading Company of New Britain, Conn., be omitted from the list, the other 13 will show an average expense of 13.3 per cent of their trade of $723,825.83. Similarly the 13 societies from which returns were obtained, outside of New England, had an expense in 1895 of 9.6 per cent on their trade of $577,368.16.

The two tables which follow give for 1895 the amount of sales, expenses, the per cent of expenses of sales, the number of employees, and the trade per employee for the New England societies and those outside of New England, respectively.

SALES, EXPENSES, AND NUMBER OF EMPLOYEES OF FIFTEEN ROCHDALE SOCIETIES IN NEW ENGLAND, 1895-96.

Name of society.	Expenses.	Sales.	Per cent of expenses of sales.	Employees.	Trade per employee.
Sovereigns' Trading Company (a)	$6,000.00	$150,000.00	4.0	13	$11,538.43
Lisbon Falls Cooperative Association	4,417.61	53,867.19	8.2	6	8,977.87
Sabattus Cooperative Association	2,500.00	31,000.00	8.1	2	15,500.00
Farmers' and Mechanics' Exchange	10,045.50	67,624.87	14.9	14	4,830.35
Arlington Cooperative Association	36,825.96	267,508.21	13.8	36	7,430.78
Beverly Cooperative Association	6,548.42	63,580.82	10.3	6	10,596.80
Cooperative Store Company	953.87	9,517.92	10.2	1	9,517.92
German Cooperative Association	2,124.00	36,037.00	5.9	3	12,012.33
Hampden County Cooperative Association	5,600.00	30,000.00	18.7	5	6,000.00
Harvard Cooperative Society (b)	8,436.27	135,151.41	6.2	25	5,406.06
Knights of Labor Cooperative Boot and Shoe Association	3,708.82	15,417.85	24.1	4	3,854.46
Lawrence Equitable Cooperative Society	3,490.12	23,707.00	14.7	5	4,741.40
Lowell Cooperative Association	12,021.30	59,428.68	20.2	11	5,402.61
Riverside Cooperative Association	4,664.50	48,216.64	9.7	6	8,036.11
Woodlawn Cooperative Association	3,027.84	17,919.65	17.0	.....	.....
Totals and averages	110,364.21	1,008,977.24	10.9	137	7,364.80

a This society differs from the Rochdale plan in that it pays no interest but gives trade dividends.
b This society differs from the Rochdale plan in that it pays no interest on stock.

SALES, EXPENSES, AND NUMBER OF EMPLOYEES OF THIRTEEN ROCHDALE SOCIETIES OUTSIDE OF NEW ENGLAND, 1895-96.

Name of society.	Expenses.	Sales.	Per cent of expenses of sales.	Employees.	Trade per employee.
Trenton Cooperative Society	$6,889.58	$51,300.00	13.4	9	$5,700.00
Jamestown Cooperative Supply Company	4,957.36	31,228.94	15.9	5	6,245.79
Ishpeming Cooperative Society	9,228.78	109,021.35	8.5	14	7,787.24
Alliance Cooperative Association	680.00	7,775.00	8.7	1¼	6,220.00
Greenwood County Cooperative Association	1,650.00	11,500.00	14.3	2½	4,600.00
Johnson County Cooperative Association	18,405.39	231,141.63	8.0	30	7,704.72
Lyon County Alliance Exchange Company	2,482.00	14,500.00	17.1	3	4,833.33
Osage County Cooperative Association	3,494.43	42,869.15	8.2	4	10,717.29
Patrons' Cooperative Association	2,200.00	28,000.00	7.9	4	7,000.00
Wakefield Alliance Cooperative Association	2,888.54	31,174.97	9.3	4	7,793.77
Poplar Cooperative Association	375.64	2,594.99	14.5	1	2,594.99
Santa Paula Cooperative Association	600.00	7,000.00	8.6	2	3,500.00
Socialists' Cooperative Store and Productive Association	1,586.52	9,262.13	17.1	7	1,323.16
Totals and averages	55,438.24	577,368.16	9.6	86¾	6,655.54

From these two tables it appears that the societies that have an expense of over 14 per cent of the sales have also less than the average sales per employee. This average for the New England societies is $7,364.80, and for the others $6,655.54. There seems no connection between the size of a society and its expenses.

The test of expense, however, can not be fairly applied to a society until it is known to what extent rent of real estate is included in expense and how much should be added for interest on the capital, whether borrowed or owned by the society. In these tables rent is included where paid, but not interest.

In the following tables the capital of the societies hitherto considered is given, the business per $100 of capital, the surplus and amount borrowed, together with the interest on the capital and on the amount borrowed, and the total expenses including interest.

CAPITAL, SURPLUS, AMOUNT BORROWED, INTEREST AT 6 PER CENT, AND TOTAL EXPENSES OF FIFTEEN ROCHDALE SOCIETIES IN NEW ENGLAND, 1895-96.

Name of society.	Capital.	Business per $100 capital.	Surplus.	Amount borrowed.	Interest on capital and amount borrowed.	Total expenses.	Per cent of total expenses of trade.
Sovereigns' Trading Company (a)	$21,000.00	$714	.....	.....	$1,260.00	$7,260.00	4.8
Lisbon Falls Cooperative Association	8,155.00	661	$2,210.32	.....	489.30	4,906.91	9.1
Sabattus Cooperative Association	4,630.00	670	425.00	.....	277.80	2,777.80	9.0
Farmers' and Mechanics' Exchange	45,000.00	150	1,026.00	.....	2,700.00	12,745.50	18.8
Arlington Cooperative Association	120,664.89	222	19,000.00	.....	7,239.89	44,065.85	16.5
Beverly Cooperative Association	8,000.00	795	1,971.00	.....	480.00	7,028.42	11.1
Cooperative Store Company	1,850.00	514	1,447.00	.....	111.00	1,064.87	11.2
German Cooperative Association	1,690.00	2,132	1,000.00	.....	101.40	2,225.40	6.2
Hampden County Cooperative Association	5,500.00	545	275.00	.....	330.00	5,930.00	19.9
Harvard Cooperative Society (b)	16,368.96	826	.....	.....	982.14	9,418.41	7.0
Knights of Labor Cooperative Boot and Shoe Association	3,405.00	453	593.17	$1,337.50	284.55	3,993.37	25.9
Lawrence Equitable Cooperative Society	4,121.59	575	435.09	.....	247.30	3,737.42	15.8
Lowell Cooperative Association	15,525.00	383	4,657.50	.....	931.50	12,952.80	21.8
Riverside Cooperative Association	11,895.00	405	4,714.41	9,850.08	1,304.71	5,969.21	12.4
Woodlawn Cooperative Association	2,068.06	866	344.11	800.00	172.08	3,199.92	17.9
Totals and averages	269,873.50	374	38,098.60	11,987.58	16,911.67	127,275.88	12.6

a This society differs from the Rochdale plan in that it pays no interest but gives trade dividends.
b This society differs from the Rochdale plan in that it pays no interest on stock.

CAPITAL, SURPLUS, AMOUNT BORROWED, INTEREST AT 6 PER CENT, AND TOTAL EXPENSES OF THIRTEEN ROCHDALE SOCIETIES OUTSIDE OF NEW ENGLAND, 1895-96.

Name of society.	Capital.	Business per $100 capital.	Surplus.	Amount borrowed.	Interest on capital and amount borrowed.	Total expenses.	Per cent of total expenses of trade.
Trenton Cooperative Society	$10,214.00	$502	$12,700.00	$3,000.00	$792.84	$7,682.42	15.0
Jamestown Cooperative Supply Company	2,240.00	1,394	844.98	999.55	194.37	5,151.73	16.5
Ishpeming Cooperative Society	49,635.00	220	3,191.55	.....	2,978.10	12,206.88	11.2
Alliance Cooperative Association	1,345.00	578	2,000.00	1,243.00	155.28	835.28	10.7
Greenwood County Cooperative Association	2,440.00	471	.....	2,726.00	309.96	1,959.96	17.0
Johnson County Cooperative Association	100,000.00	231	28,000.00	.....	6,000.00	24,405.39	10.6
Lyon County Alliance Exchange Company	2,924.00	496	1,869.00	.....	175.44	2,657.44	18.3
Osage County Cooperative Association	2,975.00	1,441	6,822.92	1,757.65	283.96	3,778.39	8.8
Patrons' Cooperative Association	3,500.00	800	6,500.00	4,000.00	450.00	2,650.00	9.5
Wakefield Alliance Cooperative Association	5,348.00	583	.....	2,818.00	489.96	3,378.50	10.8
Poplar Cooperative Association	1,103.35	235	.....	400.00	90.20	465.84	18.0
Santa Paula Cooperative Association	2,000.00	350	57.00	.....	120.00	720.00	10.3
Socialists' Cooperative Store and Productive Association	578.30	1,602	89.64	.....	34.70	1,621.22	17.5
Totals and averages	184,302.65	313	62,075.09	16,944.20	12,074.81	67,513.05	11.7

It appears that 15 New England societies, with a total capital of $269,873.50, a surplus of $38,098.60, and an amount borrowed of $11,987.58, had an average business in 1895-96 of $374 per $100 of capital and had a total expense of $127,275.88, if interest at 6 per cent on the capital and amount borrowed but not on the surplus be included. This means an average expense of 12.6 per cent on the trade of $1,008,977.24. Thirteen societies outside of New England, with a capital of $184,302.65, a surplus of $62,075.09, and with $16,944.20 borrowed, did a business of $313 per $100 of capital and had a total expense of 11.7 per cent of the trade of $577,368.16. There seem to be greater inequalities of expense in proportion to trade than can be accounted for by differences of location and of progressiveness in pushing forward, which, in the absence of a strong cooperative spirit, entails expense.

Outside of New England, and even in a measure there, as a large New York firm has written, any business house that could make both ends meet the past year is to be congratulated. It is a very fair record, therefore, that these cooperative societies present.

In most of them a depreciation of 10 per cent is yearly written off on the fixtures. The Arlington and some other societies have the excellent habit of never allowing in their inventory of merchandise a greater valuation than the original cost, and putting a lower valuation upon it if the market price has fallen.

Of 1,570 cooperative societies in Great Britain making returns in 1893 with respect to trusting, 59 per cent admitted giving credit, although it *is contrary to* the principles of the movement. Of 38 societies making

returns in this country, only 9 give no credit whatever. Many of the others, however, give but little credit, or limit it, as in England, to the value or to four-fifths of the value of the stock owned by the debtor. Others have a large amount of "bills receivable" among their assets. Trusting has been a prolific source of failure of cooperative societies in America, and many severe condemnations of it have been sent the writer by the secretaries or managers of some of these societies that have failed, as also of some of the existing societies. The New England societies do not trust as much as those farther west, although two Massachusetts societies, with a capital of about $8,000 and $15,000, respectively, report bills due them of nearly half of this. The second oldest cooperative society in the country a year ago (the Sovereigns' Cooperative Association of Webster, Mass., started in 1874), had in its by-laws for many years the words, "Never depart from the principle of buying and selling for ready money." But just before its failure in 1895 the manager, replying to the question to what extent the association trusted, wrote, "No limit, if a man is good for it!"

Ten societies report a considerable trade by their members at special discounts at private stores dealing in goods not kept by the societies. In some cases the members obtain this discount directly. In others, the discount is paid to the society and added to the other profits, an account being kept of the purchases of each member so that he may share in any dividend on these purchases. For example, the Lawrence Equitable Cooperative Society has a trade in its own store of $23,707, and receives a 10 per cent discount on an outside trade of $17,338.77. The Arlington Cooperative Association, with a trade of $267,508.21, secures 10 per cent discount on an outside trade of $67,541. The percentage in most at least of the few other cases is from 3 to 8 per cent.

A few cooperative societies secure discounts elsewhere, not only on boots and shoes, dry goods, coal and wood, hardware, oil, meat, bread, clothing, and furniture, but on bicycles, jewelry, watches, milk, musical instruments, laundry, photographs, athletic goods, and the services of the tailor, dentist, and physician.

The business directly done by the societies consists in almost all cases of the sale of groceries and the other goods usually sold in connection therewith in the ordinary private grocery. Dry goods, boots and shoes, and coal are sometimes added, more rarely meat.

The average wages of the 96 employees in 10 of the larger societies is $609.64 per year. The average of the 102 employees in 24 societies of about the same character in the Manchester, Oldham, and Rochdale districts of England in 1895 was $377.50. The average wages seem to be much higher in England when only one or two are employed than when there are many, but there seems to be no such difference here. There is hardly enough data to show whether this equality of wages in small and large American societies is due to our cooperative societies paying nearly as high wages to all employees as to the

manager, or to the location of the smaller societies in small places where all wages are low.

Appropriations for education along cooperative and other sociological lines do not equal in America even the three-fourths of 1 per cent of the net profits which is thus set aside in England. A very few societies, especially some of the new ones, are beginning to do something in this direction, notably those affiliated with the Cooperative Union to be described later.

Lawrence, Mass., has a larger proportion of members of cooperative societies than any other American city. In three societies there—the Arlington, the Equitable, and the German cooperative societies—there are 3,751 members, embracing about 19,000 persons, if each member is considered to represent a family of 5 persons. This is 36 per cent of the population of the city.

The oldest cooperative society is the Sovereigns' Trading Company of New Britain, Conn., which gives credit only for 30 days and not above the value of the share, worth $94, which every one of the two hundred members owns. All the profits are absorbed by a 10 per cent discount to members on their trade. Even interest is not paid. This society, with a business of $150,000, is one of the very few successful societies not on the Rochdale plan.

Another interesting society is the Harvard Cooperative Society, Cambridge, Mass., which places its shares at $1, allows only one share to a member, pays no interest, but adds to the capital, now $16,368.96, 10 per cent of the yearly profits and gives the rest as a dividend on trade. This dividend amounted in 1895 to 7 per cent of $135,151.41.

Very few societies have branches, as in England, save the Arlington, with two branches and a large warehouse for storage in Lawrence, and the Johnson County Cooperative Association at Olathe, Kans., with branches at Gardner, Edgerton, Prairie Center, and Stanley, Kans. The latter society, although not having as rapid a growth as the Arlington, and only earning a little over 2 per cent on its total trade the past three years, after paying 10 per cent interest on its $100,000 capital, has prospered fully as much as the community about it.

The Allegan Cooperative Association, started at Allegan, Mich., in 1874, does not give dividends on trade, but sells so near cost as to leave only enough to pay 5 per cent interest on its $15,000 capital. The society is not considered cooperative by many because entirely controlled by its manager, who has held that office from the start, and who buys on his own personal credit instead of on that of the association. The number of members, once 840, has declined to 150, but the old members can still buy at the low prices, and the sales in 1895 amounted to $140,000. Farmers' organizations as far west as Nebraska buy through the society because of its low prices.

The Texas Cooperative Association, started in 1878 at Galveston, did a business of over half a million dollars a year for several years in

direct sales of merchandise to members in the city and at wholesale to small cooperative societies in other parts of the State. Cotton was also marketed for the farmers and formed part of the large total trade mentioned above. The small local societies have now to a large extent died out. The trade of the central wholesale society was $65,000 in 1894–95 and the commission business amounted to $222,661.91. In 1895 the auditors wrote off $70,139 of bad debts, and there was still left as due the association $33,241.28. The other assets amounted to $20,586.38. The surplus was thus made to disappear and the capital was virtually reduced from $87,930.49 to $17,490.49. Of the original capital, however, all but $2,000 or $3,000 had been withdrawn by those who had paid it in, so that the present capital has been formed out of the surplus profits. From this source has also come $150,000 of cash dividends in the past.

The Zion's Cooperative Mercantile Institution, managed by the Mormons at Salt Lake City, Utah, since 1868, gives all its profits as dividends on its capital of $1,077,000, owned by 600 stockholders, and so is not technically cooperative in any full sense, but is generally acknowledged to have in practice many cooperative elements. Little data on the subject have been obtained. It appears that the profits have averaged 9⅓ per cent during the past twenty-seven years and amounted to $124,914.60 in 1895, although only 8 per cent dividend was paid that year. It not only does a retail business, but also sells largely at wholesale to the many smaller cooperative societies in the State. The employees consist of 207 men and 77 women.

At Lehi City, Utah, is located the Utah Sugar Company, with 700 members, 300 employees, $320,000 stock (on which 10 per cent dividends are usually paid), and $400,000 of 6 per cent bonds. Beet sugar is made there. All the profits appear to go to the stockholders, but there are some cooperative features.

Few societies in any part of the country limit membership save that the approval of new members by the directors is usually required. In Kansas, however, most of the societies admit only members of the Farmers' Alliance, the Patrons of Husbandry, or other farmers' or laborers' organizations. The society at Los Angeles, Cal., requires that the officers and employees shall be "Socialists in good standing in the sections where the business is done."

A few other societies are not mentioned in the tables. The Sovereigns' Cooperative Association at Dover, N. J., was started by the Sovereigns of Industry in 1874, and has continuously prospered on the Rochdale plan ever since. The 253 members receive 7 per cent interest on their $28,000 capital. Only $1,300 is in "debts receivable." From 5 to 9 per cent dividends are always divided on the trade, which in 1894 amounted to about $62,000. There are at least four other Rochdale societies in New Jersey besides the one at Trenton. The Raritan

Cooperative Association, starting in 1886, has averaged 6 per cent on its capital, now amounting to $6,715, and 7 per cent on its business, which has averaged $75,000 a year. There were, in 1894, 175 members.

The Cooperative Association No. 1, at Phillipsburg, N. J., started in 1879, has had an average membership since 1890 of 114, an average business of $28,000, a net profit of $4,320, and a capital of $1,875. At Phillipsburg is another society known as The People's Cooperative Association, with a trade of $9,886 in 1895, on a capital of $630, and a membership of 35 at the end of the year.

As a part of the Hammonton (N. J.) Fruit Growers' Union, which markets fruit cooperatively for its members, there is a successful Rochdale store. With total expenses, including interest at 6 per cent on $11,600 of capital, of only 10.5 per cent of the $61,427.43 trade, the net profits, besides 5 per cent of the capital for the reserve fund, was 10.7 per cent on the trade in 1895–96. This, however, and similar profits in the shipping department had to be devoted to paying a claim of $3,067.76 damages for accidental injury to an employee in the shipping department. The society has a membership of 646, and for every $100 of capital in the store did a business of $528 in 1895–96.

There are two cooperative societies managed by the employees of N. O. Nelson—the St. Louis Cooperative Store, started in 1894, and now having about 150 members and $15,000 trade on the Rochdale plan, and, conducted in the same way, the Leclaire Cooperative Store at Mr. Nelson's works at Edwardsville, Ill., started in 1893, and having about 50 members and $3,500 trade.

Partial returns have been received from a few other societies. There is a Rochdale society in Pittsburg, Pa., the Integral Cooperative Association, started July 1, 1894. During its sixth quarter it did a business of $8,498.33, and during its eighth quarter, $9,494.84. The trade dividends averaged over 8 per cent during 1895–96 on a business of about $30,000. There should also be mentioned the Central New York Cooperative Company at Oneida, open only to the Patrons of Husbandry, and other small but very promising Rochdale societies at South Worcester, Rockland, Haverhill, Lynn, Dorchester, and Brockton, Mass. Most of these latter societies, as well as several others not yet fully organized in Massachusetts, began in 1895 as purchasing clubs. Saving the profits and following the lead of the energetic Cambridge Cooperative Society, regular cooperative societies have now been organized.

In the following tables is given, according to the latest returns available, the membership of most of the cooperative societies in New England and outside of New England:

MEMBERSHIP OF NEW ENGLAND COOPERATIVE SOCIETIES.

Name of society.	Location.	Membership.
Sovereigns' Trading Company	New Britain, Conn	200
Lewiston Cooperative Society	Lewiston, Me	125
Lisbon Falls Cooperative Association	Lisbon Falls, Me	275
Sabattus Cooperative Association	Sabattus, Me	125
Farmers' and Mechanics' Exchange	Brattleboro, Vt	509
Woodlawn Cooperative Association	Pawtucket, R. I	174
First Swedish Cooperative Store Company	Quinsigamond, Worcester, Mass.	262
Harvard Cooperative Society	Cambridge, Mass	1,909
Cambridge Cooperative Society	do	185
Riverside Cooperative Association	Maynard, Mass	398
Hampden County Cooperative Association	Springfield, Mass	184
Knights of Labor Cooperative Boot and Shoe Association	Worcester, Mass	201
Cooperative Store Company	Silver Lake, Kingston, Mass.	123
Plymouth Rock Cooperative Company	Plymouth, Mass	82
Arlington Cooperative Association	Lawrence, Mass	2,850
Lawrence Equitable Cooperative Society	do	732
German Cooperative Association	do	169
Industrial Cooperative Association	New Bedford, Mass	410
Beverly Cooperative Association	Beverly, Mass	188
Dorchester Cooperative Association	Dorchester, Mass	20
Lowell Cooperative Association	Lowell, Mass	1,130
West Warren Cooperative Association	West Warren, Mass	196
Haverhill Cooperative Society	Haverhill, Mass	45
Lynn Cooperative Society	Lynn, Mass	60
Rockland Cooperative Society	Rockland, Mass	60
The Hub Cooperative Emporium	Boston, Mass	80
Total membership		10,692

MEMBERSHIP OF SOCIETIES OUTSIDE OF NEW ENGLAND.

Name of society.	Location.	Membership.
Trenton Cooperative Society	Trenton, N. J	465
Hammonton Fruit Growers' Union and Cooperative Society	Hammonton, N. J	646
Vineland Fruit Growers' Union and Cooperative Society	Vineland, N. J	54
Sovereigns' Cooperative Association	Dover, N. J	253
Raritan Cooperative Association	Raritan, N. J	175
Cooperative Association No. 1	Phillipsburg, N. J	114
Jamestown Cooperative Supply Company	Jamestown, N. Y	217
Integral Cooperative Association	Pittsburg, Pa	300
Allegan Cooperative Association	Allegan, Mich	150
Ishpeming Cooperative Society	Ishpeming, Mich	350
Zumbrota Mercantile and Elevator Company	Zumbrota, Minn	294
Texas Cooperative Association	Galveston, Texas	300
Greenwood County Cooperative Association	Eureka, Kans	165
Lyon County Alliance Exchange Company	Emporia, Kans	378
Johnson County Cooperative Association	Olathe, Kans	900
Osage County Cooperative Association	Overbrook, Kans	108
The Alliance Cooperative Association	Green, Kans	97
Wakefield Cooperative Association	Wakefield, Kans	154
Patrons' Cooperative Association	Cadmus, Kans	217
Zion's Cooperative Mercantile Institution	Salt Lake City, Utah	600
Socialists' Cooperative Store and Productive Association	Los Angeles, Cal	102
Santa Paula Cooperative Association	Santa Paula, Cal	50
Poplar Cooperative Association	Poplar, Cal	26
Total membership		6,115

The New England membership early in 1896 was 10,692, and the membership elsewhere, 6,115. These, together with 6,000 in the labor exchanges, constitute a total of 22,807. There are known to be several, and perhaps over 20 cooperative societies outside of and even in New

England, from which no reports have been made. These would increase the total membership to 25,000 at least. The trade of the 20 leading cooperative societies in New England with a membership of 10,242 amounts to $1,174,000, or $114.63 per member. The trade of 21 others with 5,465 members was $1,198,000 in 1895, or $219.21 per member. The Zion's Cooperative Mercantile Institution is not included. The sales of 1,711 British cooperative societies with 1,414,158 members in 1895 averaged £37 2s. 8d. ($180.71) worth of goods per member, or a total of £52,512,126 ($255,550,261.18).

COOPERATION AMONG TRADE UNIONS.

Cooperation among the trade unions has almost no permanent success, although it has sometimes proved a temporary resource while men were on a strike. Mr. Henry White, general secretary of the United Garment Workers of America, writes that the many cooperative efforts in his trade have resulted in failure because of disagreement respecting the management and the selection of officials and because the attempt was made to pay higher wages and exact less work than in the other shops. Mr. Henry Weissmann, head of the bakers and confectioners, writes: "We have had cooperation in Brooklyn, Boston, Baltimore, and Philadelphia; all unsuccessful. It is lack of education and business qualifications, and more especially the latter, that produced these failures."

UNION OF COOPERATIVE SOCIETIES.

Apart from Utah, there are five centers of the cooperative movement in America—California, Kansas, Texas, New Jersey, and Massachusetts. An attempt is now being made to federate the various Kansas societies engaged in different forms of cooperative effort, and the first congress for this purpose was held at Topeka in April. An attempt was made to secure a similar union of all parts of the country in a convention at St. Louis the last of July, but it was largely swallowed up by the Populist convention there the same week. Most of those attending came not as delegates of cooperative societies, but as individuals. Yet a national organization was effected, called the American Cooperative Union, with Alonzo Wardall, of Topeka, Kans., as president, and Imogene C. Fales, of Bensonhurst, N. Y., secretary.

Another attempt at union was made in September, 1895, when the Cooperative Union of America was founded in the eastern part of Massachusetts. At the first conference under the auspices of this union, June 6, 1896, representatives of twelve societies and of nearly 1,500 members were present. Rev. Robert E. Ely and Mr. James Rhodes, both of the Cambridge Cooperative Society, were made president and secretary, respectively, and after an enthusiastic meeting arrangements were made for a larger conference in October. After providing for the name

of the union as given above, and declaring that the object is to promote cooperation on the Rochdale plan in America, the rules proceed:

ARTICLE III.—*Membership.*

1. Persons in sympathy with the Rochdale plan of cooperation may, upon the approval of the office committee, become members of the union by paying a fee of $1 per year. This fee includes a year's subscription to the organ of the union, the Cambridge Magazine.(*a*)

2. A cooperative society, a trade union, and any other organization may, upon approval of the office committee, become a member by paying an annual fee equal to not less than 2 cents per annum for each of its members.

ARTICLE IV.—*Government.*

1. Until a sufficient number of societies shall have become members to enable them to elect representatives after the manner of the cooperative union of Great Britain, the union shall be managed by a general board, called the central board. The members of the central board shall be appointed by the office committee, subject to confirmation by the union at the annual meeting in each year. Twelve members of the central board shall constitute a quorum.

2. The central board after its election at the annual meeting shall choose from its membership an office committee for the ensuing year of nine persons. This committee shall have direct charge of the work of the union.

3. The office committee shall elect from its own number a president, vice-president, treasurer, recording secretary, and general secretary of the union.

ARTICLE V.—*Meetings.*

1. The annual meeting of the union shall be held sometime about October in each year. Fifteen members shall constitute a quorum. Special meetings may be held at any time at the call of the office committee.

2. The central board shall meet just prior to the annual meeting. Special meetings may be held at any time, at the call of the office committee.

3. The office committee shall meet at least once a month.

ARTICLE VI.—*Amendments.*

These rules may be amended by a two-thirds vote of the members present at any meeting of the central board.

In cooperation two things are necessary for any large or enduring benefit. First is needed a moral enthusiasm, a true cooperative spirit, joined to a careful study, by all the cooperators, of the underlying principles of the movement. Cooperation is in spirit a sense of brotherhood—a willingness to subordinate the individual to the general good of at least all who can be induced to affiliate. As Thomas Hughes once stated, where financial success, by the accident, it may be, of an excellent manager, comes to a society that is devoid of this spirit, the very success gives birth "to a greedy desire for gain rather than to those higher and more elevating feelings which we have all supposed to be the legitimate result of a true and earnest cooperation." Referring to the ease with which cooperative conventions dissolve without accomplishing anything, an active worker in the movement writes of

a Later known as the American Cooperative News, published monthly.

how much easier it is for the American people to "co-talk" than to "co-work." On the other hand, however, many cooperative enterprises have failed for lack of a good manager and of ordinary business capacity among the members. This is the second need. The fact, for example, that the Arlington Cooperative Society is now only exceeded in membership by 99 out of nearly 1,500 English societies and in trade by only 149 has undoubtedly stimulated the formation of other societies. While a truly cooperative society is not likely to buy sweat-shop goods or work its employees long hours, it is apparently true, as a general proposition, that cooperative distribution is not a new method of doing business, but a new method of dividing profits, together with a democratic system of control on the part of members intelligently united and ready to accept the leadership of those best qualified.

LABOR EXCHANGES.

A very novel development has lately appeared in the cooperative movement. It is known as the Labor Exchange, and seems to have owed its origin to Mr. G. B. De Bernardi, of Independence, Mo., who organized it under the laws of Missouri in 1889 and is still president of the national organization.(*a*)

Those desiring to form a labor exchange in a place usually pay $1 apiece as entrance fee. The local exchange thus formed then sends $2.50 to the central office at Independence for labor exchange blanks, and invites any member to deposit with it any product of labor and receive therefor an exchange check of the same denomination as the officers think would be the local wholesale price in money. These goods are then marked up to the usual retail price. A depositor may use his check to buy from the exchange anything he finds there that he wants. By virtue of this redeemability in goods, though never in legal money, private merchants and others are to some extent induced to accept these checks as money, writes Mr. De Bernardi, but sometimes only at a discount. For the present all profits are devoted to the extension of the movement. In theory, however, the profits belong to the depositors, and if ever withdrawn would be apportioned in proportion to the length of time of the individual deposits. The principal underlying interest is thus acknowledged, but no direct interest payment is now made. Goods deposited may be sold to outsiders for these checks or for legal money, and in order to enable the societies to purchase some needed supplies elsewhere members are encouraged to deposit legal money as well as other property. A depositor may receive either a check or a certificate of deposit. The latter has upon its face blank lines for the name of the depositor, the date, and the amount of the deposit. On the reverse side appear the words: "This certificate of

a See The Trials and Triumphs of Labor, by G. B. De Bernardi; also, The Progressive Handbook of the Labor Exchange, by E. Z. Ernst.

deposit is not redeemable in legal tender, but receivable by the Labor Exchange Association in payment for merchandise, for services, and for all debts and dues to the same, and it is based upon and secured by the real and personal property in the keeping of the association, at the branch of issue. The property held for the redemption of this certificate can not, as per charter, be mortgaged nor pledged for debts, nor can it be withdrawn, but may be exchanged by the association for other property of equal value. Pay to ——— ———, depositor." Labor checks are issued of all denominations from $\frac{1}{100}$, which is really of the same value, or meant to be, as 1 cent, to 20, which is the equivalent of $20. On the face of the checks appear the value and the words: "Balance due bearer in labor or the products of labor by Labor Exchange, Branch No. —," followed by the location of the exchange and the year of issue. Since these obligations are not redeemable in money, the United States Treasury Department has decided that they are not subject to the 10 per cent tax on circulation.

The Labor Exchange of Topeka, Kans., did a business in 1895 of $10,000 at an expense of $1,500 and with a net profit of $1,000. The goods on hand at the end of the year belonging to the 40 members was $1,200. The capital is returned as $1,000.

Although the oldest branches were started among the wage workers of large cities, more success has come with branches in small towns and rural districts.

Mr. De Bernardi writes:

The distinctive characteristic of the labor exchange from other forms of cooperation is, that we regard true cooperation impossible within one industry. We do not believe that farmers, for instance, can organize cooperation among themselves. They can only combine against other classes. What is true of farmers is true of manufacturers, of railroad men, of carpenters, tailors, cigar makers, etc. Each separate industry can only combine to raise the price of their labor or lower the price of others' labor to their own personal benefit. True equitable cooperation is only operative between two or more branches of industry.

Farmers can cooperate with other industries, and interchange products and keep each other employed. So in every other industry, we are endeavoring to form a universal cooperation of this character, and have now (June 26, 1896) 135 branches scattered in 32 States, and a membership of 6,000, comprising almost every trade, profession, and calling.

Many of these branches are engaged in profitable enterprises. Especially will I name Branch No. 11, of Pfafftown, N. C. This branch, situated in a village of 100 souls, all poor, with no money or employment visible, went to work first at making brick, then building storehouses, then putting up a tannery and tanning hides on shares, then a sawmill and gristmill, etc. Thus the labor exchange infused life and energy in a financially dead country, and what has been done, and is being accomplished at Pfafftown we believe can be done all over the United States, and thus bring prosperity to the country without binding ourselves to foreign capitalists or mortgaging our property for the use of useless money.

* * * * * * *

Our leading object is to employ idle labor without lowering the customary wages, and interchange labor's products without competing with customary prices. As we issue certificates for deposits, we need have no fear of losing our customers, for we hold the final redemption for the outstanding certificates at par. Even if merchants or others should honor our checks (as in many places they are doing), these checks would finally come home for final redemption. Hence, we need no stimulus in low prices or rebates to attract our customers.

We are not a profit-sharing, but a benevolent, association. Hence, our increase, if any, is used to extend the field of operations, to open additional enterprises, and thus employ more labor—all, however, for the benefit of the associates. But should a member or his family stand in need of assistance, appropriation would be made for his or their benefit. Beyond this we let the future take care of the profits.

We aim to capitalize the deposits of work and products for the benefit of depositors; or, to express it more clearly, we propose to let the members insure to themselves employment and means out of the revenues which, under the present monetary system, would be absorbed by the capitalists.

Following is also appended the distinctive parts of the by-laws of one of the twenty-two southern California labor exchanges, which, though only about a year old, has over 200 members.

BY-LAWS.

ARTICLE I.—*Name.*

This association shall be known as the "Los Angeles Branch of the Labor Exchange, No 39," acting under a charter granted by the General Labor Exchange with headquarters at Independence, Mo., and in conformity with the laws, rules, regulations, and charter granted to G. B. De Bernardi and others, under the laws of the State of Missouri, as a benevolent, industrial, and educational association.

ARTICLE II.—*Location.*

The business headquarters of this branch shall be in the city of Los Angeles, County of Los Angeles, State of California.

ARTICLE III.—*Purposes.*

SECTION 1. The objects of this association are to provide employment for those who are idle by facilitating the interchange of commodities and services among the members and the public.

SEC. 2. To alleviate the suffering incident to, and avert the social dangers which may arise from a constantly increasing class of unemployed by furnishing useful occupation and saving the wealth thus produced for the use and benefit of actual producers and their dependents.

SEC. 3. To lighten the burden of charitable institutions by establishing one that employs the idle on a basis of justice.

ARTICLE IV.—*Membership.*

Any member of the General Labor Exchange may become a member of this branch by signing the constitution and by-laws, and there shall be no initiation fees, dues, or assessments.

ARTICLE V.—*Duties of members.*

It shall be the duty of members to interest themselves, as much as they are able, in the welfare of the branch, to promote its interests by word, act, and example, to give employment to its members in preference to others, all things being equal, and

to trade at the depository so long as it offers equal advantages in quality and price of goods. All such members shall be considered active.

ARTICLE VI.—*Withdrawals.*

A member may withdraw from this branch at any meeting by giving notice of intention at any previous regular meeting and directing the secretary to strike his name from the roll. Such action shall not affect his standing in the General Labor Exchange. Any property conveyed to the branch can not be recovered; the title to which and the possession thereof must remain in and with the Labor Exchange.

ARTICLE VII.—*Officers.*

SECTION 1. The officers of this branch shall be a president, vice president, secretary, accountant, statistician, and seven directors.

SEC. 2. Excepting the first term, all officers shall be elected for one year.

ARTICLE VIII.—*Election of officers.*

The annual election of officers shall occur on the first Tuesday in September of each year. All officers shall hold office until their successors are elected and installed.

ARTICLE IX.—*Removal of officers.*

SECTION 1. Any officer, director, or committeeman may be removed at any time by a majority vote of all the members present at a regular meeting. Such officer, director, or committeeman must first be notified in writing in a regular meeting to appear before a subsequent special or regular meeting, the date of which to be then determined in open meeting, to show cause why he shall not be removed.

ARTICLE X.—*Duties of officers.*

SECTION 1. It shall be the duty of the president to preside over all meetings, to sign labor checks and other checks, contracts and papers requiring an official signature, and attend to any matter directed by the General Labor Exchange, and to all duties devolving upon and accustomed to be performed by that officer.

SEC. 4. The accountant shall keep the books and accounts of the association, have charge of all bills, vouchers, etc. He shall countersign and issue all labor checks after they have been signed by the president and perform all the clerical duties belonging to his office and such as may be required by the board of directors. He shall give bond in the sum of $5,000, which sum may be changed at any time by the branch and raised at the discretion of the board. He shall also act as treasurer of the branch.

SEC. 7. The statistician shall have charge of the collection and distribution of statistical reports, presenting as full exhibits as can be obtained of the condition and wants of the association.

ARTICLE XI.—*Neglect of official duty.*

The absence of any officer—unless from some unavoidable cause, the same to be determined by the board of directors—from three consecutive meetings, or neglect to perform official duties, shall be deemed equivalent to a resignation of office, and the directors shall proceed to fill such vacancy until the next meeting of the branch.

ARTICLE XII.—*Committees.*

SECTION 7. It shall be the duty of the relief committee to visit sick members and to provide for their necessities so far as the funds set apart for that purpose by the branch may admit.

SEC. 8. The library committee shall devise ways and means for a free library. They shall select the books, papers, magazines, etc., and, with the advice and consent of the board of directors, provide and maintain a room to which the public may be invited.

SEC. 9. The programme committee shall have charge of all entertainments that may be given by the branch.

SEC. 10. The auditing committee shall audit the books and accounts of all officers once in three months and make a written report to the branch at its next regular meeting.

ARTICLE XVI.—*Discipline.*

Charges may be preferred against any member at any regular meeting, indictments to be signed by at least two members and written in duplicate, one copy to be given to the accused, the other filed with the secretary. At the next regular meeting after the date of presenting charges a jury of nine, chosen by lot from among those present, shall be selected to try the case as soon as practicable, the time and place of the trial to be determined by the jury. Their decision shall be final except when the verdict is expulsion, in which case appeal may be had to the membership at a special meeting, date to be announced at the first subsequent regular meeting after the trial is concluded. If the defendant does not signify his readiness for trial within the limit of time above stated, the case shall, at the expiration of that time, proceed as though he had.

The accused may be assisted by any member as counsel.

ARTICLE XVII.—*Employment bureau.*

There shall be a free employment bureau in charge of the secretary at the office of the exchange, which shall be open to all members. All who so desire may register for help or situations wanted. The secretary shall make effort to fill all orders.

COOPERATIVE SHIPPING ASSOCIATIONS.

Although it is not the purpose of this paper to describe the cooperative shipping of fruit by the farmers, a brief reference may be made to the existence of such associations in California, northern Ohio, New Jersey, Georgia, and some other States. In California there are forty-four fruit exchanges that both dry fruit and market it in the great markets of the country. Eight of the southern California fruit exchanges have united for some purposes and selected an executive board, with headquarters at Los Angeles, but the attempts that have been made at different times to form an efficient State association have thus far failed.

About one-fourth of the grapes grown in northern Ohio in 1895 were shipped out by the Northern Ohio Grape Company, a cooperative marketing society. Since nonmembers, however, receive many of the benefits resulting from the steadiness of the market price effected by the distribution of fruit with this end in view by the cooperative societies, many do not join these associations. Other difficulties have also been met. Little success seems to have been attained in Delaware, but 90 per cent of the fruit growers of Georgia have joined the association of that State, and among other things have been instrumental in reducing freight rates on their shipments.

Success has also attended the Fruit Growers' Union and Cooperative Society at Hammonton, N. J., whose grocery department is described on a previous page. This association in 1895 shipped 1,870,506 quarts of berries, or about the average of the previous two years. It also

shipped 24,487 baskets of peaches, 2,884 barrels of pears, 621 barrels of apples, 29,370 pounds of grapes, and 10,680 quarts of plums. Although the shippers received a good price through the society, the usual profits of both this and the grocery department were absorbed in the payment of a claim for damages to an employee. In 1895 a by-law was adopted that "members shipping to commission houses not entered on our books, except in cities where we do no business, shall forfeit the sum of 3 per cent on the gross sales of all such shipments, this amount to be taken from such offending member's dividend. They shall also forfeit all privileges of the society for that year."

As an example of another type of shipping association, mention may be made of the Springfield (Mass.) Cooperative Milk Association, which collects milk from its 159 members, sells from its own carts at retail about one-fifth of the 3,000,000 quarts thus yearly gathered, wholesales about one-half of it to milk peddlers, and makes the rest into butter. The members of the association thus have a steadier market and, if living many miles from the city, they also get a higher price than would be secured without such an association. The average price obtained by the farmers usually is between 2.8 and 3 cents a quart, the retail price being 6 cents. This association is steadily growing and claims to supply one-half of the milk used in Springfield. The capital now amounts to $23,640 and members receive 6 per cent interest on their investment. Many not desiring to join this association sell their milk to it at 95 per cent of the price paid the members. No member is allowed to sell milk save to the association, either directly or indirectly, under penalty of forfeiture of his stock, or such other punishment as the directors see fit to impose, while there are very minute and rigid regulations for the proper care of the milk.

LAWS RELATING TO COOPERATION.

In Massachusetts the law allows any seven persons to form a cooperative society, but requires that the capital must be at least $1,000, and that paid in before business is begun. This is said by some to stand in the way of cooperative societies that otherwise might be able to start in a small way and then grow, as did the famous Rochdale society. In practice, some feeble societies are able to start by beginning as purchasing clubs, dividing a large order among themselves at the common retail price and saving the profits, until the $1,000 is accumulated. When the capital stock is increased, it can not be sold below par. Such a company can not alter its business from that specified in its articles of incorporation without the unanimous consent of its stockholders. This is thought to prevent the formation of a wholesale society by the retail cooperative societies, as in England and Scotland; but if that be the correct interpretation of the law, it will doubtless be amended as soon as there is any desire for such a society. In common with all

other corporations, a cooperative society in Massachusetts is obliged to make a yearly report to the secretary of state as to its capital stock, the amount paid up, the name and holdings of each shareholder, "and the assets and liabilities of the corporation, in such form and with such detail as the commissioner of corporations shall require or approve." This section is superior to that of most States, but in the case of cooperative societies should be supplemented, as in Great Britain, with the requirement that in the publication of the returns there should be included the number of members, the annual trade, the rate of dividends, the expenses by items, and a few other items. There is, of course, no secret about these items in the town where the society is located, but their wider publicity would help along the movement.

In Massachusetts no one can hold over $1,000 of stock in a cooperative association. Dividends, if there are any to divide, must be declared at least once a year, but before any distribution can be made at least 10 per cent of the net profits must be added to a sinking fund until it equals 30 per cent of the capital. Cooperative societies are also exempted from the weekly payment law, unless the employees request it, and $20 worth of stock in such a society in the hands of a member is exempted from attachment for debt.

In contrast with the many excellences of the Massachusetts law is that of Illinois, which prohibits shares under $50 and allows them to be $2,000, while no one can hold more than one share. Dividends must be in proportion to the work or product of each shareholder. "If in any kind of industry it should be impossible to assign all shareholders to equally advantageous positions or locations in work, the association may provide that shareholders shall periodically change places, or provide any other method of equalizing such matters in accordance with justice and equity." No association can employ anyone except a stockholder, but the latter can do so when sick, and in case of his death his legal representative may appoint a worker and so keep the dividends. The principle of unlimited liability by the stockholders for all debts prevails. It is evident that the framers of this law either knew nothing of cooperation or intended to have none in Illinois.

California enacted a law of some value on this subject in 1895. Connecticut, Minnesota, New York, Michigan, Wisconsin, Ohio, and a few other States have legislated, but usually in a very defective way. Outside of Massachusetts the only two States that have any at all adequate cooperative legislation are Pennsylvania and New Jersey.

The distinctive features of the Pennsylvania law are, (1) prohibition of all giving of credit (as in Wisconsin in cooperative distribution); (2) requirement that at least 25 per cent of the net profits be set aside for propaganda and as a social fund; (3) dividends must be given on the wages and salaries of employees at the same rate as on the trade of members, while nonmembers must receive one-half as high a rate on their trade, but the directors may credit profit dividends toward the

payment of stock, until it reaches the limit allowed; (4) before profits are divided, as they must be quarterly according to these general Rochdale principles, the fixtures and machinery must be depreciated at the rate of 10 per cent yearly and the buildings 25 per cent; (5) besides certain other purposes for which deductions must be made, the law requires the formation of a reserve fund, to which all fines and forfeitures must be carried (the Massachusetts law, which requires the setting aside of 10 per cent of the profits until a surplus is formed equal to 30 per cent of the capital, is better on this point); (6) division of the capital into (*a*) "permanent," nonwithdrawable stock, transferable as the by-laws may determine, and paying 6 per cent interest, of which stock every member must have at least one share, and (*b*) "ordinary" stock, paying 5 per cent, and which may be repaid, transferred, or withdrawn, in accordance with the by-laws; (7) shares of either kind may be from $5 to $25 value, and no one can hold over $1,000 without consent by a vote of the members.

The New Jersey law, while lacking a few excellent features, and perhaps not on the whole much superior to that of Massachusetts or Pennsylvania, is yet sufficiently complete to merit insertion in full. The chief feature of the law, passed in 1884, is its requirement of full details in the by-laws, that there may be no misunderstanding afterwards. Reports to the State, though not sufficiently complete, are required. Proxy voting is forbidden. Every stockholder is liable for the debts of the society, up to the full par value of his share, if all has not been paid in. A cooperative society may invest one-third of its capital in another society, thus rendering legal a wholesale society on the English basis. The following is the law of New Jersey relating to cooperative societies, approved March 10, 1884:

AN ACT TO PROVIDE FOR THE FORMATION AND REGULATION OF COOPERATIVE SOCIETIES OF WORKINGMEN.

1. That it shall be lawful for any number of persons, not less than seven, residents in this State, to associate themselves into a society for the purpose of carrying on any lawful mechanical, mining, manufacturing, or trading business, or for the purpose of trading and dealing in goods, wares, and merchandise or chattels, or for the purpose of buying, selling, settling, owning, leasing, and improving real estate and erecting buildings thereon, within this State, upon making and filing a certificate of association, in writing, in manner hereinafter mentioned, and as such shall be deemed to be a corporation and to possess all the powers incident thereto.

2. That such certificate of association shall set forth:

I. The name assumed to designate such society and to be used in its business and dealings, which name shall have the word "cooperative" as a distinguishing part thereof, but shall in no respect be similar to that of any other society organized under this act.

II. The place or places in this State where the business of such society is to be conducted and the location of the principal office of the same.

III. The objects for which the society shall be formed.

IV The total amount of capital stock of such society, the number of shares into which the same is divided, the par value of each share, the manner in which the

installments on the shares shall be paid, the number of shares subscribed, and the amount actually paid in cash on account of the same.

V. The terms of admission of the members.

VI. Mode of application of profits.

VII. The mode of altering and amending the certificate of association and the by-laws of the society.

3. That the said certificate of association shall be signed by the persons originally associating themselves together, and shall be proved or acknowledged by at least seven of them, before an officer qualified to take acknowledgments of deeds of real estate, and after being approved by the chief of the bureau of statistics of labor and industries shall be recorded in the office of the clerk of the county where the principal office or place of business of such society shall be established, and a copy of such certificate shall be filed in the office of the chief of the bureau of statistics of labor and industries.

4. That the business of every such society shall be managed and conducted by a board of not less than five directors, who shall respectively be members of said society, and shall be annually elected at such time and place as shall be provided in the by-laws of the society, and one of such directors shall be chosen president and one of them shall be chosen treasurer, and such directors and officers shall hold their respective offices until their successors are duly qualified; and that such society shall also have a secretary and such other officers, agents, and factors as may be necessary to carry on its business, and shall choose them in the manner prescribed in the by-laws thereof.

5. That the first meeting of such society shall be called by a notice signed by a majority of the persons named in the certificate of association, and designating the time, place, and purpose of the meeting, and shall be personally served on all the persons signing said certificate, or by advertisement in a newspaper published in the county where such society shall have been incorporated, if such personal service can not be made; and at such meeting so called, or at any adjourned meeting thereof, a majority of the persons so signing shall constitute a quorum for the transaction of business, and shall have power to elect the directors and other officers provided for in section 4 of this act, who shall serve until their successors duly qualify, and to adopt by-laws, rules, and regulations for the government of such society.

6. That the by-laws of such society shall provide:

I. For an annual meeting of the members thereof, and such other regular and special meetings as may be deemed desirable, the number of members necessary to constitute a quorum for the transaction of business and the right of voting at the same.

II. For the election of directors and other officers, agents, and factors, and their respective powers and duties.

III. For the limitation of the amount of such real and personal estate as the purposes of the society shall require.

IV. Whether the shares, or any number of them, shall be transferable, and in case it be determined that the same shall be transferable, provision for their transfer and registration, and the consent of the board of directors to the same; and in case it shall be determined that the shares shall not be transferable, provision for paying to members the balance due to them on withdrawal, or of paying nominees in cases hereinafter mentioned.

V. How members may withdraw from the society.

VI. Whether and by what authority any part of the capital may be invested in or on security of another society through which its products are disposed of or its supplies secured.

VII. Whether and to what extent credit in its business transactions may be given or taken.

VIII. In what sum and with what sureties the treasurer and other fiduciary

officers or agents shall give bonds for the faithful performance of their respective duties.

IX. For the audit of accounts.

X. For the distribution of the net profits.

XI. For the custody, use, and device of the seal, which shall bear the corporate name of the society.

7. That every society incorporated under this act shall paint or affix, and shall keep painted or affixed, its name on the outside of every office or place in which the business of the association is carried on, in a conspicuous position, in letters easily legible.

8. That every society incorporated under this act shall have a registered office to which all communications and notices may be addressed, and notices in writing of the location of such office, and of any change therein, shall be filed with the chief of the bureau of statistics of labor and industries, and in the office of the clerk of the county where the office of such society is located.

9. That the capital stock of such society shall be divided into shares the par value of which shall not be more than $50, and no share shall be issued for less than its par value; and that no certificate of shares shall be issued to any member until the shares are fully paid up.

10. That no member of such society shall be entitled to more than one vote upon any subject, which vote must be cast in person; and that the board of directors shall have power, unless otherwise provided in the by-laws of the society, to fix and regulate the number of shares to be held by any one member.

11. That any society incorporated under this act may hold in its corporate name any amount of interest in any other society through which its products are disposed of or its supplies secured: *Provided*, That such interest so held shall not exceed one-third in value of the paid-up capital of the society holding said interest.

12. That the board of directors of every society incorporated under this act shall annually make a statement in writing of the condition of such society, setting forth the amount of capital stock, the number of shares issued and the par value thereof, the number of stockholders and the number of shares held by each, the amount and character of the property of the society and of its debts and liabilities; and said statement shall be signed and sworn to by a majority of directors, including the treasurer, and filed in the office of the clerk of the county where the principal office of such society is located, and that immediately thereafter a copy of such statement shall be forwarded to the chief of the bureau of statistics of labor and industries, who, if he shall have reason to doubt the correctness of such statement or upon the written request of five members of such society, shall cause an examination of the books and affairs of such society to be made and render a correct statement to the members thereof; and every member or creditor thereof shall be entitled to receive from the secretary a copy of such annual statement; and every director or other officer refusing to comply with the requirements of this section, or making and signing a false annual statement of the condition of the society, shall forfeit for each offense the sum of $100, to be recovered in an action of debt in any court of competent jurisdiction in this State by any member or creditor of the society who shall sue for the same.

13. That any member or other person having an interest in the fund of any such society may inspect the books thereof, at all reasonable hours, at the office thereof.

14. That there shall be such distribution of the profits of such society, among the workmen, purchasers, and members, as shall be prescribed in the certificate of association, at such times as therein prescribed, as often at least as once in twelve months: *Provided*, That no such distribution shall be made until a sum equal to 5 per cent of the net profits shall have been appropriated for a contingent or sinking fund, and that such appropriation shall continue to be made until there shall be accumulated a sum equal to 30 per cent of the capital stock of such society.

15. That any member of such society, by writing under his hand, delivered at the office of the society, may nominate any person, being the husband, wife, father, mother, child, brother, sister, nephew or niece, or other relative of such member, to whom his or her share of the capital stock of the society shall be transferred at his or her decease, and from time to time may revoke or vary such nomination, by a writing similarly delivered; and such society shall keep a book, wherein the names of all persons so nominated and the number of shares to be transferred shall be recorded: *Provided, nevertheless,* That in lieu of making such transfer the society may provide for payment to all such nominees of the full value of shares intended to be transferred: *Provided also,* That if by the by-laws of the society the shares are transferable, this section shall not be construed to forbid the transfer of such shares by sale or will, or otherwise, subject to the consent of the board of directors.

16. That any such society may be dissolved in the manner in which any other corporation may be dissolved under existing laws.

17. That where the whole capital of such society shall not have been paid in, and the assets of such society shall be insufficient for the payment of its debts, liabilities, and obligations, each stockholder shall be bound to pay, on each share held by him, the sum necessary to complete the amount of such share, as fixed in the certificate of association, or such proportion as shall be required to satisfy such debts, liabilities, and obligations: *Provided, however,* That no such contribution shall be required from any person after the expiration of one year from the time he has ceased to be a member, or for any debt, liability, or obligation contracted after he has ceased to be a member of such society.

The following are copies of two typical sets of by-laws. The first by-laws are sent to new societies, as a model for them, by the Cooperative Union of America, Cambridge, Mass.; the second are the by-laws of the Arlington Cooperative Association, Lawrence, Mass., selected because the society is the largest in the country on the Rochdale plan.

BY-LAWS OF THE ——.

ARTICLE I.—*Name.*

This society shall be known as the ——.

ARTICLE II.—*Objects.*

The object of this society shall be cooperation on what is known as the Rochdale plan. All sales to be for cash.

ARTICLE III.—*Capital stock.*

The capital stock of the society shall be in shares of $2 each.

Shares may be withdrawn at thirty days' notice or earlier at the option of the committee of management.

ARTICLE IV.—*Membership.*

Any person may upon approval of the committee become a member of the society by paying an entrance fee of 25 cents each and giving name and address.

ARTICLE V.—*Meetings.*

SECTION 1. The regular quarterly meetings of the society shall be held on the last —— in January, April, July, and October, the one held in January being considered the annual meeting.

SEC. 2. Monthly general meetings shall also be held on the last —— of the month for the discussions of some question connected with the welfare of the society.

Nominations for the coming vacancies on the committee shall be made at the monthly meeting next previous to the quarterly meeting.

ARTICLE VI.—*Officers of the society.*

SECTION 1. The management of this society shall consist of a president, treasurer, recording clerk, and nine committeemen, all of whom shall have a vote and be elected by ballot.

They shall have the general management of all business carried on by or on account of the society, supervise the buying, and appoint the secretary, salesmen, and other persons necessary for conducting such business, and may assign such persons such remuneration and on such terms as they shall deem fit.

SEC. 2. Two auditors shall be chosen, and after the first term one shall retire at the meeting in January and one at the meeting in July in each year, the first to retire being the one receiving the lowest number of votes at his election. They shall be eligible for reelection.

SEC. 3. The members at a general meeting may remunerate the committee and auditors at such a rate as they deem fit.

SEC. 4. All officers of the society shall hold their offices till others have been chosen and qualified to take their place, excepting those who, having been elected for a period of —— years continuously, may not be reelected until the expiration of one year. Any member is eligible for office.

SEC. 5. After the first election three committeemen shall retire at each of the April, July, and October quarterly meetings, the order of retirement being determined by the votes, those receiving the lowest number of votes at their election retiring first, and at the annual meeting in January the president, treasurer, and recording clerk shall retire, but, with the committeemen, except in the limitation named in section 4, shall be eligible for reelection, or others may be qualified in their stead. After the first term the order of retirement will be in the order of election.

ARTICLE VII.—*Duties of officers.*

SECTION 1. The president shall be chosen by the committee and shall preside at all meetings of the society and committee, countersign all checks, and be ex officio chairman of all committees; and in case of a tie, shall have a casting vote. In his absence a chairman may be chosen for the occasion.

SEC. 2. The treasurer shall be chosen by the committee and shall sign all checks and account for all moneys paid him on behalf of the society.

SEC. 3. The recording clerk shall be chosen by the committee and attend all meetings of the society and committee and record the minutes of the proceedings and all votes in a book kept for that purpose. He may not hold any other remunerated office under the society.

ARTICLE VIII.—*Profits.*

The profits of the society shall be disposed of as follows:

SECTION 1. Interest shall be declared on capital stock at the rate of 6 per cent per annum on $10 or more, interest to commence on the 1st of the month.

SEC. 2. After paying the expenses of the society not less than 5 per cent per annum of the net profits shall be set aside for a sinking or reserve fund, and 2½ per cent for an educational fund.

SEC. 3. The net profits after providing for interest, sinking or reserve fund, and all other claims and expenses, shall be divided among purchasers and employees in such proportions and disposed of in such manner as a majority of members present at a meeting called for that purpose shall deem fit, non-members to receive a share of the profits to the extent of one-half that given to members.

SEC. 4. Members must leave one-half their dividend until owning ten shares.

ARTICLE IX.—*Surplus capital.*

Should the society find that they have more money than they can reasonably employ, the committee may, with the sanction of a majority at a quarterly meeting, invest such surplus or portion thereof in such manner as may then be decided upon.

ARTICLE X.—*Special meeting.*

Special general meetings may be convened by a written requisition, signed by ten members, being sent to the committee, or by three members of the committee.

ARTICLE XI.—*Quorum.*

Ten members at a general meeting and five at a meeting of the committee shall constitute a quorum.

ARTICLE XII.—*Vacancies.*

A vacancy of an office occurring during a term, the place may be filled by vote of the members at a regular meeting or at a meeting called for that purpose, or by the committee until the next regular quarterly meeting.

ARTICLE XIII.—*Bonds.*

The treasurer, secretary, salesmen, or assistants and all other persons appointed by the members or committee shall give such bonds or securities as the committee may deem sufficient.

ARTICLE XIV.—*Alteration of rules.*

Any alteration or amendment to these by-laws must be proposed in writing one meeting, at least, previous to action being taken thereon, and shall not be adopted unless by a majority of members present and voting.

ARTICLE XV.—*Expulsion of members.*

The committee shall have power to expel any member who persists in conduct detrimental to the society's welfare.

ARTICLE XVI.—*Inspection of accounts.*

Any member may, during reasonable office hours, inspect all and any of the society's books and accounts, except the private share account of any other member, which he may not inspect except by written authority of said member.

BY-LAWS OF THE ARLINGTON COOPERATIVE ASSOCIATION.

ARTICLE I.—*Name.*

SECTION 1. This association shall be known as the Arlington Cooperative Association.

SEC. 2. The place or places of business shall be at such location or locations as the association may from time to time determine. All books of account, securities, and documents of the association, other than such as are required for the carrying on of business on account of the same elsewhere, shall be kept at a stated general office at Lawrence, Mass.

ARTICLE II.

The object of this association is to carry on the trade of general dealers in household supplies, on the cooperative plan.

ARTICLE III.

SECTION 1. Any person, upon approval of the board of directors, may become a member of this association after being proposed by a member, paying an entrance

fee of 50 cents, and signing a declaration of his readiness to take at least one share of stock, and willingness to conform to the by-laws of this association. Such proposal shall give the person's name, trade, and address, and shall be signed by the member making the proposal, which shall be sent to the clerk with the entrance fee, and entered by him in a book kept for that purpose. If approved by the directors, he shall be considered a member upon payment of at least $1 on account of his subscription, as otherwise provided.

SEC. 2. Candidates for membership rejected by the directors shall have the power of appeal through any member to the general meeting. Any person rejected shall have his entrance fee returned on application.

SEC. 3. At the general office a list of members' names, trades, and residences shall be kept, and no person shall be deemed a member unless his name appears on this list. The names of all persons who under these by-laws cease to be members shall be erased therefrom.

ARTICLE IV.—*Funds and revenues.*

SECTION 1. The permanent capital of this association shall be in shares of $5 each. Each member of this association can hold from one to two hundred shares. The capital of the association shall be invested by the board of directors in purchase of stock and fixtures agreeable to the articles of agreement.

SEC. 2. From the absolute profits, after paying the expenses of the association, not less than 10 per cent per annum shall be set aside for a sinking fund, which shall be allowed to accumulate until it amounts to a sum equal to 30 per cent in excess of the capital stock.

SEC. 3. Interest shall be declared on the capital stock at the rate of 5 per cent per annum, payable quarterly. The directors shall at any time have power, with the sanction of the quarterly meeting, to reduce the rate of interest.

SEC. 4. After deducting from the profits the amounts provided in sections 2 and 3 of this article, and the amount assessed as State and city tax, the remainder shall be divided quarterly in proportion to the amount expended in purchase of goods. Non-members will receive a share of the profits to the extent of one-half of that given to members.

SEC. 5. Receipts from entrance fees shall be added to the sinking fund of the association.

SEC. 6. Interest will commence on the first of each month upon all paid-up shares.

SEC. 7. No interest will be paid on shares withdrawn before the end of the quarter.

SEC. 8. Dividends and interest may remain to the credit of the shareholders at their option, and whenever such accumulation amounts to the par value of one share, interest shall be declared according to the provisions of section 6 of this article, provided that this amount, with that of the original shares invested, shall not exceed the par value of 200 shares.

SEC. 9. Should the directors find that they have more cash in the treasury than they can profitably employ in the ordinary business of the association, they may, with the sanction of the quarterly meeting, invest any such portion of the cash in such manner as may be deemed advisable.

ARTICLE V.—*Officers.*

SECTION 1. The officers of this association shall consist of a president, clerk, treasurer, and ten other persons, who, with the exception of the clerk, shall constitute the board of directors.

SEC. 2. The clerk, treasurer, and eleven directors shall be chosen annually by the stockholders by ballot, and shall hold their office for one year, and until others are chosen and qualified in their stead, provided that it shall be considered requisite, unless they may be otherwise disqualified, to reelect one-half of the old board at each election. The president shall be chosen by the board of directors from their number.

SEC. 3. Candidates for the board of directors and all other officers of the association shall be nominated at the quarterly meeting immediately preceding the yearly meeting at which they are proposed for election. Should the number nominated not be sufficient to fill the vacancies, the yearly meeting shall elect the required number not so nominated.

SEC. 4. An auditor should be chosen annually by ballot.

SEC. 5. No person shall be eligible for the office of director who has not been a member of the association for at least six months, or be eligible for president who has not been a director twelve months; or if he hold any other office or place of profit under the association; if he is concerned in or participates in the profits of any contract with the association; or if he carries on the same business as the association; or if he has a relative employed by the association.

ARTICLE VI.—*Duties of officers.*

SECTION 1. It shall be the duty of the president to preside at all meetings of the association and board of directors, and, in case of equal division, to give the casting vote, besides his own vote as a member. He shall sign all documents or certificates issued by the association or board of directors; shall hold in his possession the bonds of the treasurer, or any of the employees where bonds are required, and shall perform all other duties usually appertaining to his office.

SEC. 2. It shall be the duty of the clerk to keep a correct record of all business meetings of the association and board of directors, and, in case of the absence of the president, to call the meeting to order. He shall keep a correct record of the names and residences of the members, and shall serve all notices ordered by the board; he shall carry on all correspondence and shall attest all documents issued by the association or board of directors, and shall deliver to his successor in office all property in his possession belonging to the association.

SEC. 3. It shall be the duty of the treasurer to receive all moneys due from members and others, and to disburse the same in payment of claims against the association when approved by an advisory committee. He shall keep such records of business transactions of the association not otherwise provided for by the board of directors, and shall make a full and complete report at each quarterly meeting of the financial condition of the association. He shall give such bonds for the faithful performance of his duties as the board of directors may require, and shall deliver to his successor all books, money, vouchers, and other property of the association in his possession.

SEC. 4. It shall be the duty of the auditor, at the close of each quarter's business, to audit the accounts of the treasurer and other officers, including stock on hand, demanding for this purpose any information he may see fit, and report condition of the same at the quarterly meeting.

ARTICLE VII.—*Management.*

SECTION 1. The board of directors shall have control of all business carried on by, or on account of, the association; the purchase and sale of goods; the engaging of managers and of all other persons necessary for conducting the business; providing for places of meeting; the rates of payment for work or services done on account of the association, and the regulation of salaries and securities of the managers and employees, to whom it may assign such duties as it shall deem proper.

SEC. 2. The board of directors shall, with the consent of a general meeting, have power to lease, purchase, or erect any building or buildings for the purpose of the association, and to mortgage, rent, or sell such buildings or any part thereof.

SEC. 3. The board of directors shall meet every alternate Tuesday evening, and shall provide for the detailed work of the business by the appointment of subcommittees. It shall in all things act for and in the name of the association, and all

acts and orders under the powers delegated to it shall have like force and effect as if they were acts and orders of a majority of the members of the association at a general meeting thereof. Every question at such meeting of the board shall be decided by a majority of votes cast. Seven members of the board shall constitute a quorum.

SEC. 4. The president, at the request of three members of the board, shall call a special meeting thereof by giving one day's notice in writing to the clerk; but no business shall be taken into consideration other than that specified in the notice. The board shall convene special meetings of the stockholders at their discretion, allowing three days' notice of the same.

SEC. 5. The board shall cause the accounts of all business carried on to be regularly entered in proper books, and a quarterly report to be made out covering all business to the end of each quarter, which, together with all necessary vouchers, shall be submitted to the auditor not less than seven days previous to such meeting, and shall be printed and distributed to the members as early as possible thereafter.

SEC. 6. All meetings of the board of directors shall be open to the attendance of other members, but no such member shall take part in its discussions.

ARTICLE VIII.—*Meetings.*

SECTION 1. The general meetings of this association will be held quarterly, on the last Wednesdays of January, April, July, and October of each year.

SEC. 2. The annual meeting of this association for the election of officers shall be held on the last Wednesday of April of each year.

SEC. 3. The president shall cause a special meeting of the association to be called, upon a written request, signed by ten members of the association. At such meeting no other business shall be transacted than that named in such requisition.

SEC. 4. Notices of all meetings shall be posted by the clerk in a conspicuous place in the store or stores, three days previous to the same. In the case of special meetings, such notice shall state the object of the meeting.

SEC. 5. At all meetings of the association fifteen members shall constitute a quorum for the transaction of business.

SEC. 6. No subject foreign to the purpose of the association shall be introduced at any of its meetings for business.

ARTICLE IX.—*General Regulations.*

SECTION 1. Quarters shall commence on the first of January, April, July, and October.

SEC. 2. All purchases from the association shall be made strictly for cash.

SEC. 3. Each member of the association shall be provided with a book of account, in which shall be entered a statement of shares held, with quarterly dividends and interest.

SEC. 4. Each purchaser shall be provided with checks or a pass book at the option of the directors, which shall show the amount of purchases on which dividend will be declared. The same to be returned, as provided from time to time by the board of directors.

SEC. 5. No intoxicating liquors shall be allowed on sale by the association.

SEC. 6. Any complaint as to quality or prices of goods sold by the association, or respecting the conduct of any of its employees, should be made to the directors in writing, signed by the party making the complaint, and such complaint shall be investigated and decided by the board.

SEC. 7. All sales are to be made at the average retail market price.

SEC. 8. Each stockholder shall be entitled to a certificate of his stock, under the seal of the corporation, signed by the president and the treasurer.

SEC. 9. No stockholder shall be entitled to more than one vote in any business meeting of the association.

SEC. 10. The board of directors may suspend any member from participating in the benefits of the association who persists in conduct injurious to the association, until it shall submit the matter to a stockholders' meeting, giving the offender three days' notice thereof, which meeting shall confirm and extend the action of the directors, or otherwise, as it may think proper.

ARTICLE X.—*Withdrawals.*

SECTION 1. Any member of this association desiring to withdraw from the association the whole or any part of his or her stock shall make a written application to the directors, and within thirty days from the date of such application the board shall pay or cause to be paid such applicant the amount of shares he may desire to withdraw, but if the board fail to pay or cause the same to be paid within thirty days, said applicant may transfer his or her shares to any other member, provided the member has not the full number of shares allowed in the by-laws, but in no case shall he transfer his share to persons not members of the association unless he first obtain consent of the board of directors, which consent shall be signed by the president and clerk, and entered on the records of the association. In case a member transfer his share or shares he must surrender his certificate to the board of directors, and the board shall cause a new certificate to be issued to the person to whom he makes such transfer.

SEC. 2. Any member being in distress may withdraw any shares he may have in the association at the discretion of the board of directors.

ARTICLE XI.—*Amendments.*

These by-laws shall not be altered or amended unless such alteration or amendment be proposed in writing one meeting previous to action being taken thereon, providing, also, that two-thirds of the members present vote in the affirmative.

ARTICLE XII.—*Vacancies.*

In case of a vacancy in the offices of clerk, treasurer, auditor, or any of the directors, by resignation or otherwise, a substitute shall be elected at the next quarterly meeting, or at a special meeting called for that purpose.

ARTICLE XIII.

That the duties of the treasurer be so modified as to make him simply custodian of the money, and to entail no other bookkeeping than a simple cash account and signing of checks and certificates, with a true rendering of said account when called upon.

That the duties of the clerk be made to include all bookkeeping and money transactions with the members required by the association, as well as all present duties, and that he be made the executive officer, under the directors, of all duties assigned by them from time to time. That his position be sufficiently remunerated as to insure a perfectly reliable and satisfactory incumbent, whose whole attention can be given to the calls of the association, and that he be placed under equal bonds with the treasurer.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

KANSAS.

Eleventh Annual Report of the Kansas Bureau of Labor and Industry. 1895. William G. Bird, Commissioner. vi, 211 pp.

This report treats of the following subjects: The milling industry, 31 pages; manufacturing industries, 40 pages; the salt industry, 11 pages; labor, 58 pages; labor organizations, 24 pages; strikes, 7 pages; sociology, 27 pages.

THE MILLING INDUSTRY.—Reports were secured from 190 milling establishments located in different parts of the State, but of this number 21 failed to give sufficient data to justify tabulation. The information contained in the reports is presented in detail and summarized for the State. The following statement shows the principal facts for the State:

MILLING STATISTICS OF KANSAS FOR THE YEAR ENDING DECEMBER 31, 1895.

Items.	Mills reporting.	Total.
Cost of plant	160	$4,034,851
Commercial value of plant	127	$2,832,100
Capacity, 24 hours' run, barrels	158	25,762
Output for year, barrels	103	2,241,066
Sets of rolls	150	1,401
Sets of buhrs	86	137
Materials—		
Wheat, bushels	115	11,982,268
Cost	103	$7,194,106
Corn, bushels	89	1,241,609
Cost	77	$292,932
All other grain, bushels	52	567,379
Cost	38	$57,984
Products—		
Flour, wheat, pounds	96	428,838,360
Value	83	$5,600,494
Corn meal, pounds	66	25,871,654
Value	64	$697,968
Other flour or meal, pounds	22	5,787,300
Value	20	$61,232
Offal, pounds	86	371,022,786
Value	78	$1,642,599
Employees—		
Greatest number	141	1,214
Smallest number	128	673
Average number	139	929
Total wages paid during year	112	$453,126

MANUFACTURING INDUSTRIES.—Reports were secured from a number of establishments engaged in various kinds of industry. These reports represent 42 counties from all sections of the State, and hence represent the State at large. The reports are presented in detail, by industries, for each county. Answers are given to numerous questions concerning employees, wages, strikes, principal markets for product, freight rates, etc. The totals for the six most important question

are as follows: Capital invested, $111,119,279.25; cost of plant, $7,768,095; repairs, $2,661,376.04; products, $67,770,647.14; materials, $50,985,283.06; wages, $4,508,078.18.

THE SALT INDUSTRY.—A historical and descriptive account is given of the salt industry of the State, and statistics are presented for the industry by county totals. The seven salt plants from which reports were secured reported capital at $875,000, cost of plant at $260,000, value of product at $261,051.80, cost of materials at $58,165.85, wages at $57,760.77.

LABOR.—A detailed tabular account is given of reports received from 519 workmen engaged in various industries throughout the State. The following statement, presenting the totals for five of the industries treated, indicates the character of the information solicited:

REPORTS OF LABORERS, 1895.

Items.	Carpenters.	Miners.	Barbers.	Compositors.	Cigar makers.
Number reporting	20	59	36	41	32
Number reporting earnings	20	56	35	41	32
Earnings for year	$12,818.00	$22,512.80	$19,299.65	$25,296.60	$18,213.00
Average	$640.90	$402.01	$551.41	$616.99	$569.15
Number reporting cost of living	15	46	31	34	29
Cost of living for year	$5,286.00	$13,895.00	$11,544.00	$22,802.00	$9,602.00
Average	$352.40	$302.06	*a* $372.35	$670.64	$331.10
Number reporting savings	4	3	3	9	4
Savings for year	$632.75	$350.00	$500.00	$1,518.80	$940.00
Average	*b* $158.20	$116.66	$166.66	$168.75	$235.00
Number reporting debt	6	28	6	3	10
Debt for year	$265.00	$1,666.00	$362.00	$135.00	$635.00
Average	$44.16	$59.50	$60.33	$45.00	$63.50

a Figures here apparently should be $372.38; those given are, however, according to the original.
b Figures here apparently should be $158.18; those given are, however, according to the original.

LABOR ORGANIZATIONS.—Of 142 schedules sent to labor organizations throughout the State, 92 replies, sufficiently complete for tabulation, were received. Some of the facts presented for these organizations are summarized in the following statement:

LABOR ORGANIZATIONS, 1895.

Items.	Number of organizations reporting.
Membership—	
Increased	41
Decreased	22
No change	25
Total answering question	88
Wages—	
Increased	3
Decreased	6
No change	78
Total answering question	87
Hours of work—	
Increased	1
Decreased	13
No change	70
Total answering question	84
Immigration—	
Has affected craft	14
Has not affected craft	70
Total answering question	84
Strikes—	
Involved in	8
Not involved in	80
Total answering question	88
Boycotts—	
Involved in	10
Not involved in	76
Total answering question	86
Grievance or arbitration committee—	
Had troubles settled by	30
Did not have troubles settled by	57
Total answering question	87

STRIKES.—An account is given of the important strikes and labor troubles that occurred in the State during the year.

SOCIOLOGY.—Under this title is presented a number of specially prepared articles on the labor problem from college professors, economists, and labor leaders.

MONTANA.

Third Annual Report of the Bureau of Agriculture, Labor and Industry of Montana for the year ended November 30, 1895. James H. Mills, Commissioner. 205 pp.

The subject-matter of this report is grouped as follows: Introductory, 21 pages; economic statistics of counties, 18 pages; fruit growing, 19 pages; official directory of United States, State, and county officials, 24 pages; labor organizations, railroad traffic, wages, production, and investments, 34 pages; precious and semiprecious metals, 12 pages; agriculture and stock growing, 32 pages; miscellaneous statistics, 11 pages; laws of special interest to wage earners, 16 pages.

ECONOMIC STATISTICS OF COUNTIES.—The following statement summarizes for the entire State some of the facts presented under this title for the different counties:

REVENUE, EXPENSES, ETC., OF COUNTIES FOR CALENDAR YEAR 1894.

Revenue from licenses	$369,674.77
Total expenses (*a*)	$1,909,169.80
Amount collected for public school fund (*a*)	$618,210.87
Amount expended for public schools (*a*)	$541,867.14
Number of criminal cases begun by finding informations and indictments	465
Number of civil cases begun	2,706
Number of letters of administration granted	307
Number of executions issued during the year	515
Number of real estate transfers	8,151
Amount of real estate transfers	$13,200,072.77
Number of real estate and chattel mortgages recorded	6,965
Amount of real estate and chattel mortgages recorded	$10,470,249.62
Number of mechanics' liens filed	479
Amount of mechanics' liens filed	$118,914.04
Number of divorces granted	228
Number of marriage licenses granted	1,598
Number of persons to whom final naturalization papers were issued	9,934
Indebtedness of counties March 1, 1894	$2,584,910.11
Indebtedness of counties March 1, 1895	$2,856,053.71

LABOR ORGANIZATIONS, RAILROAD TRAFFIC, WAGES, PRODUCTION, AND INVESTMENTS.—The name, location, date of organization, and amount of benefits paid are given for 82 labor organizations in the State. These organizations had a membership of 9,186, of whom 36 were females. Excluding persons engaged in farming and stock

a For fiscal year ended February 28, 1895.

raising, it was estimated that 81.95 per cent of the wage earners in the State were in employment on July 1, 1895. Including those engaged in farming and stock raising, 89.37 per cent were employed. The wages, employees, and traffic are shown for the different railroads in the State, and the wages, employees, capital, and production are given for selected industries.

PRECIOUS AND SEMIPRECIOUS METALS.—The following statement summarizes the statistics given for the State under this title:

ESTIMATED VALUE OF METALS PRODUCED.

Kind of metal.	1894.	1895.
Gold	$3,651,410	$4,327,040
Silver	a 16,575,458	a 22,886,992
Copper	17,233,719	21,114,869
Lead	730,552	754,360
Total	b 38,191,139	b 49,083,261

a At coining value. b Silver included at coining value.

AGRICULTURE AND STOCK GROWING.—The average production per acre and the average prices are shown for farm products; also the proportional amount of the sales in Montana of the products of the State as compared with the sales of imported products. The cost of living is indicated by tables showing the average prices of different commodities.

The average wages per month of employees on farms and stock ranges is shown for each county. The following statement presents the averages for the entire State:

AVERAGE WAGES PER MONTH, INCLUDING BOARD AND LODGING, OF EMPLOYEES ON FARMS AND STOCK RANGES.

Class of employees.	Year ending June 30—	
	1894.	1895.
Foremen	$56.69	$55.99
Herders	31.26	31.11
Range riders	38.97	36.34
Farm hands	30.21	29.52
Cooks	35.09	35.16

NEW JERSEY.

Eighteenth Annual Report of the Bureau of Statistics of Labor and Industries of New Jersey. For the year ending October 31, 1895. Charles H. Simmerman, Chief. viii, 251 pp.

The following subjects are treated in this report: Panic inquiry, 1894–95, 61 pages; effect of occupation on the health and duration of the trade-life of workmen, 99 pages; the distribution of wealth, 11 pages; free public employment offices, 5 pages; cooperative movement

in New Jersey, 17 pages; cooperative building and loan associations of New Jersey, 53 pages.

PANIC INQUIRY, 1894–95.—This inquiry is a continuation of that of 1893–94, the results of which were published in the report of the bureau for 1894 in the chapter relating to the industrial depression of 1893–94. Statistics covering the year ending June, 1895, were obtained from 196 manufacturers in 40 general industries, showing, month by month, the changes in the number of persons employed and in the amount of wages paid. Returns were also secured from 93 manufacturers in 39 general industries, showing the value of the goods produced by them during the year ending June, 1895. The figures are brought into comparison with the value of the output of the same establishments during the preceding year.

All the establishments from which returns were secured giving the number of employees and the amount of wages paid were in operation in June, 1893, and a comparative showing of the reported facts is made for June, 1893, June, 1894, and each succeeding month to and including May, 1895. Of the establishments reporting these facts, 86 were engaged in the manufacture of textiles and textile products and 57 were engaged in the manufacture of metals and metallic products. The establishments engaged in these two lines of production constituted more than two-thirds of the entire number reporting.

The following statement shows the number of employees and the amount of wages paid in the establishments reporting in June, 1893, June, 1894, and in each succeeding month to and including May, 1895, with the percentages of increase or decrease.

EMPLOYEES AND WAGES, JUNE, 1893, AND JUNE, 1894, TO MAY, 1895.

[Each percentage of decrease or increase after June, 1894, indicates the decrease or increase since June, 1894.]

Month.	Employees.			Wages.		
	Average number.	Per cent of increase.	Per cent of decrease.	Amount.	Per cent of increase.	Per cent of decrease.
June, 1893	35,457			$1,086,537		
June, 1894	31,857		10.2	907,558		16.5
July, 1894	31,843			868,319		4.3
August, 1894	32,218	1.1		922,860	1.7	
September, 1894	33,140	4.0		938,154	3.4	
October, 1894	33,933	6.5		1,004,121	10.6	
November, 1894	34,853	9.4		971,822	7.1	
December, 1894	34,186	7.3		1,003,131	10.5	
January, 1895	34,506	8.3		941,373	3.7	
February, 1895	34,684	8.9		955,646	5.3	
March, 1895	35,138	10.3		1,068,703	17.8	
April, 1895	36,594	14.9		1,081,226	19.1	
May, 1895	37,057	16.3		1,139,174	25.5	

The figures secured from the 93 establishments in 39 general industries, showing the value of their products for the year ending June, 1895, when compared with similar figures from the same establishments

for the preceding year, show a substantial increase in the volume of business. For the year ending June, 1894, the total value of the manufactured products of the establishments referred to was $13,983,883; for the succeeding year the total value of such products was $16,854,730; an increase of $2,870,847, or 20.5 per cent.

EFFECT OF OCCUPATION ON THE HEALTH AND DURATION OF THE TRADE-LIFE OF WORKMEN.—The inquiry in regard to this subject was first undertaken by the bureau in 1889. The information sought for was obtained from individual journeymen at work at their respective trades, and the data thus gathered are presented in tables, arranged by occupations, showing the age at which the workman began to work at his trade, his present age, the age at which he first began to decline (i. e., lose his activity as a workman), the number of years actually at work, and whether American or foreign born. The inquiry has been carried on for a period of six years, and returns have been secured from 19,947 workmen, employed in nearly 80 occupations. The returns secured in 1895 from 1,167 individuals are tabulated in connection with those previously secured.

The following statement shows the principal results of the investigation as to certain occupations in which returns were secured from comparatively large numbers of workmen:

AGE, YEARS AT WORK, ETC., OF WORKMEN IN CERTAIN OCCUPATIONS.

Occupations.	Number of individuals reported.	Average.		Per cent beginning to decline.	Per cent American born.
		Present age.	Years at work.		
Bakers	933	33.4	16.9	6.2	26.8
Bricklayers and masons	1,022	36.4	18.5	8.3	62.1
Carpenters	2,732	36.5	18.7	6.4	66.6
Cigar makers	1,061	31.3	14.4	9.8	65.8
Hat finishers	1,257	32.8	15.0	12.3	69.0
Hat makers	1,247	34.5	15.5	17.6	44.0
Miners, iron ore	1,269	34.1	16.0	7.1	39.6
Potters, pressers	455	30.5	15.7	6.4	49.0
Potters, kiln men	297	32.6	14.5	10.8	45.0
Painters	1,235	34.5	15.0	12.8	71.8
Plumbers	661	32.0	16.0	10.6	82.4
Printers	462	31.2	14.5	9.7	79.0
Railroad, locomotive engineers	449	43.1	13.5	30.0	96.0
Railroad, locomotive firemen	411	31.4	6.6	5.6	96.1
Railroad, brakemen	1,445	30.2	8.2	6.1	94.2
Stonecutters	701	33.5	19.0	.....	16.5

THE DISTRIBUTION OF WEALTH.—The distribution of visible taxable wealth among those liable to taxation in four of the principal cities of the State, namely, Camden, Newark, Jersey City, and Paterson, has been ascertained by means of transcripts made of the tax duplicates for 1895 of the cities named. The data thus secured show that the assessed valuations of $1,000 and upward covered over 90 per cent of the total assessed valuation of taxable property in each of the four cities.

The following statement shows the total assessed valuation of property and the number of persons, including firms and corporations,

assessed for taxation in 1895 in each of the cities named, in amounts under $1,000, from $1,000 to $5,000, and $5,000 and over:

ASSESSED VALUATION OF PROPERTY AND NUMBER OF PERSONS ASSESSED IN FOUR PRINCIPAL CITIES OF NEW JERSEY, 1895.

Items.	Camden.	Newark.	Jersey City.	Paterson.	Total.
Valuations under $1,000—					
Amount	$2,756,644	$6,676,423	$7,460,417	$3,281,942	a $20,182,652
Per cent of total valuation	8.3	5.2	8.4	8.3	7.0
Persons assessed (b)	7,102	21,482	21,681	10,916	61,181
Valuations from $1,000 to $5,000—					
Amount	$12,214,874	$40,392,941	$30,154,810	$15,750,917	c $98,506,316
Per cent of total valuation	36.9	31.6	33.7	40.0	34.0
Persons assessed (b)	5,818	16,933	11,958	5,780	40,489
Valuations of $5,000 and over—					
Amount	$18,128,480	$80,805,770	$51,784,395	$20,354,607	$171,073,252
Per cent of total valuation	54.8	63.2	57.9	51.7	59.0
Persons assessed (b)	962	4,746	3,275	730	9,713
Total valuation—					
Amount	$33,099,998	$127,875,134	$89,399,622	$39,387,466	$289,762,220
Persons assessed (b)	13,882	43,161	36,914	17,426	111,383

a Figures here apparently should be $20,175,426; those given are, however, according to the original.
b Including firms and corporations.
c Figures here apparently should be $98,513,542; those given are, however, according to the original.

COOPERATIVE MOVEMENT IN NEW JERSEY.—A historical and descriptive statement is made of the formation and development of cooperative societies in the State, and separate accounts are given of 24 such organizations, showing the nature of the business carried on by them, the extent of their operations, and the success or failure attending their efforts.

The following extract is made from the text on this subject:

In the early seventies, under the patronage of the Sovereigns of Industry, the Patrons of Husbandry, and the Knights of Labor, various attempts were made in this State to organize cooperative associations for the purchase of supplies, farming implements, and articles of household necessity. These were, however, mostly voluntary associations without any legal status as corporate bodies. A few of them incorporated under the general corporation law of the State, but most of them simply adopted a constitution and by-laws and a form of certificate of shares, etc. Under this plan of association the members were simply joint partners and individually liable for all debts contracted. This for a time gave them almost unlimited credit in the purchase of such articles as they chose to handle, but it also operated to discourage members who possessed property, who on the first reverse would become alarmed and withdraw. Consequently most of these enterprises were short lived. But in 1881 the legislature passed an act entitled "An act to encourage the formation of cooperative associations among workingmen," since which time certificates of association of 40 cooperative societies have been filed in the office of the bureau of statistics of labor and industries and approved by the chief as the law requires. Seven of these were organized for manufacturing or productive cooperation, and 33 for distribution or exchange. Not one of the productive associations ever began business. Of the 33 distributive societies organized 25 began business and 8 did not. Of those that began business 10 are still in operation.

COOPERATIVE BUILDING AND LOAN ASSOCIATIONS OF NEW JERSEY.—The new legislative requirement that all State reports shall be made as of October 31, and compiled within one month thereafter, prevented the complete tabulation of the statistical information returned by the building and loan associations of the State in answer to interrogatories issued by the bureau in August, 1895, and such tabulations as were made could not be analyzed and summarized in a satisfactory manner.

In the following statement the general statistics relating to shares, shareholders, and capital and profits are summarized for 301 associations from which returns were received, the returns from associations in operation less than one year not being included:

Total associations reporting	301
Shares in force	693,810
Shares borrowed on	202,639
Shareholders	101,619
Borrowers	25,598
Installment dues on shares in force	$29,843,237
Net profits on shares in force	$8,070,538
Net assets	$38,882,110

The total outstanding indebtedness reported by 234 associations amounted to $1,486,081, including overpayments and amounts due on canceled shares, but not including net worth, unearned premiums, and undelivered loans. One hundred and fifty-seven associations borrowed $1,842,202, and 164 associations repaid borrowed money to the amount of $1,858,319 during the year, the latter amount including payments on borrowings of previous years. Two hundred and ninety-four associations reported receipts and disbursements during the year amounting to $17,272,430 and $16,206,831, respectively.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

La Petite Industrie: Salaires et Durée du Travail; Tome II, Le Vêtement à Paris. Office du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. 1896. 721 pages.

Since its organization the French labor bureau has been carrying on a series of investigations concerning the wages and hours of labor of workingmen in France. Several volumes giving the partial results of the investigation have been issued, but the final volume, in which the information that has been obtained will be summarized and analyzed, has not yet appeared. As a branch of this general investigation, a special investigation has at the same time been carried on concerning the conditions of labor in the minor industries at Paris. By minor industries is meant such work as is carried on either in the homes of the workingmen in connection with stores and shops, or in such small industrial establishments that they scarcely merit the designation of independent factories. Such, for example, are the industries of tailoring, dressmaking, bread baking, slaughtering, and preparation of meats, etc.

The first volume related to industries in connection with food products, such as bakeries, butcher shops, supplies of milk, etc., and was issued in 1893. (*a*) The second volume, giving the results of this investigation as far as the clothing trades at Paris are concerned, has just been published by the bureau.

The nature of the industries treated in these two volumes has necessitated the adoption of a special method of investigation. Instead of conducting the inquiry along identical lines for the different industries, so that results could be assembled in general tables from which general statements concerning the condition of labor could be deduced, it has been found necessary to take up each individual industry, or in cases each individual occupation separately, and to write a monographic treatise concerning the conditions pertaining to it, to which are added, somewhat in the nature of exhibits, a series of studies of the conditions of labor in a number of particular establishments.

The general portion of each monograph thus first gives an account of the estimated number of such establishments in Paris, the conditions under which the industry is carried on, that is, the mechanical

a La Petite Industrie: Salaires et Durée du Travail; Tome I, L'Alimentation à Paris. Office du Travail, Ministère du Commerce, de l'Industrie et des Colonies. 1893.

appliances necessary, the number of assistants required, the names of the occupations of these assistants, their wages and hours of labor, the chances that they have for themselves becoming the heads of establishments, etc. The study of conditions in particular establishments, based upon schedules filled in by M. Maroussem, to whom this investigation was intrusted by the bureau, then follows.

In other words, the object of the investigation has been not to make either a complete or even partial statistical census of the industries considered, but rather to present the information in such a way as to show the conditions of labor in each and the general problems surrounding its conduct.

Répartition des Salaires du Personnel Ouvrier dans les Manufactures de l'État et les Compagnies de Chemins de Fer. Office du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes. 1896. 154 pp.

This report relating to the wages of employees of the Government manufactories and the railway companies of France in 1895 was prepared by the French labor bureau in pursuance of a request by the committee on labor of the Chamber of Deputies. The Government manufactories referred to comprise the 20 establishments for the manufacture of tobacco and the 7 establishments for the manufacture of matches, both of which industries are in France state monopolies. The railway companies include all of the 7 great companies into which the railway system of France is divided, as well as 4 companies operating what are called secondary lines.

The information is given for each of these three branches separately and relate to the amount of wages earned during a single wage payment period. In other words, the information is not based on an average for the year. In no instance are wages given either by single or even by the most general grouping of occupations, the only divisions being those according to sex, the age periods 12 to 18, 19 to 25, 26 to 45, 46 to 60, and over 60 years, and the amount of the earnings of the employees. As the report says, therefore, "the present investigation ought not to be regarded as furnishing indications rigorously exact concerning the absolute amount of wages, but rather as giving simply a sufficiently accurate idea of the relative situation of the various workingmen from the standpoint of their earnings."

The inquiry covers a total of 174,864 employees, of which 15,120 were employed in the manufacture of tobacco, 2,120 in the manufacture of matches, and 157,624 in railway transportation.

Of the 15,120 employees of the tobacco factories, 1,446, or 10 per cent, were males, and 13,674, or 90 per cent, were females. Their division according to age periods as well as sex is shown in the following table, in which the amount of the earnings per hour of all employees is shown according to sex and age periods. It should be stated that

wages are here paid almost exclusively by the piece and have been reduced to the hour basis. The number of hours worked per day is ten.

AVERAGE EARNINGS PER HOUR OF EMPLOYEES OF GOVERNMENT TOBACCO FACTORIES.

Age.	Number of employees receiving—										All employees.			
	$0.0048 to $0.0676 per hour.		$0.0677 to $0.0801 per hour.		$0.0801 to $0.1062 per hour.		$0.1063 to $0.1255 per hour.		Over $0.1255 per hour.		Male.		Female.	
	Male	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Number.	Average wages	Number.	Average wages
12 to 18 years	7	34	1	10	.....	6	.....	.....	.....	.....	8	$0.039	50	$0.058
19 to 25 years	2	377	5	66	15	107	4	9	2	1	28	.095	560	.062
26 to 45 years	19	6,252	113	1,431	502	1,255	225	149	88	58	947	.102	9,145	.062
46 to 60 years	13	2,771	48	431	198	301	84	53	43	11	386	.104	3,567	.060
Over 60 years	6	281	9	28	43	34	11	9	8	.....	77	.100	352	.058
Total	47	9,715	176	1,966	758	1,703	324	220	141	70	1,446	.102	13,674	.062

The above table shows a marked difference in the wages of male and female employees. While but 3 per cent of the males earn $0.0676 or less per hour, 71 per cent of the females receive not more than that amount of pay. The average wages of all male employees is stated at $0.102 per hour and of female employees at $0.062 per hour.

In the Government match factories the proportion of employees who are males is somewhat larger, 676, or 32 per cent, being of that sex, and 1,444, or 68 per cent, being females. A table similar to the one just given for tobacco factory employees shows their average earnings according to sex and age periods. Here also ten hours constitute a day's work.

AVERAGE EARNINGS PER HOUR OF EMPLOYEES OF GOVERNMENT MATCH FACTORIES.

Age.	Number of employees receiving—										All employees.			
	$0.0048 to $0.0676 per hour.		$0.0677 to $0.0801 per hour.		$0.0801 to $0.1062 per hour.		$0.1063 to $0.1255 per hour.		Over $0.1255 per hour.		Male.		Female.	
	Male	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Number.	Average wages	Number.	Average wages
12 to 18 years	12	63	4	17	8	9	1	1	.....	1	25	$0.073	91	$0.056
19 to 25 years	39	349	16	133	23	114	20	5	11	3	109	.087	604	.062
26 to 45 years	102	294	69	164	122	184	88	17	70	2	451	.100	661	.073
46 to 60 years	14	40	14	22	31	16	6	.....	8	.....	73	.093	78	.069
Over 60 years	3	6	7	3	8	1	.....	.....	.....	.....	18	.083	10	.067
Total	170	752	110	339	192	324	115	23	89	6	676	.097	1,444	.068

Though still considerable, the difference between the earnings of male and female employees as here shown is not so great as in the case of the tobacco workers. Twenty-five per cent of the men and 52 per cent of the women received $0.0676 per hour or under. The average earnings for all the employees were, for the men $0.097, and for the women $0.068 per hour.

The total number of employees of the railroads concerning which information was obtained was 157,624. Of these, 138,587, or 88 per cent, were male, and 19,037, or 12 per cent, female. The women are almost entirely gate keepers or watchmen along the road. They are generally provided with houses and attend to their house duties as well. The hours of labor of the men vary from 9 to 12 per day, and those of the women from 10 to 15. In view of the character of the work of the women, however, a statement of their hours of labor has little significance. The following tables show the earnings of the railway employees according to sex and age periods. It has been necessary to make a showing separately for those employees who are paid by the month and who constitute the higher grades of employees and those paid by the day, hour, or piece, or the workingmen proper.

AVERAGE EARNINGS PER HOUR OF WORKING PEOPLE ON GOVERNMENT RAILWAYS.

Age.	Number of employees receiving—										Total.	
	$0.0048 to $0.0676 per hour.		$0.0677 to $0.0801 per hour.		$0.0801 to $0.1062 per hour.		$0.1063 to $0.1255 per hour.		Over $0.1255 per hour.			
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
12 to 18 years	1,325	364	82	.....	46	.....	3	.....	.....	.....	1,456	364
19 to 25 years	5,311	1,005	1,202	.....	1,071	.....	222	.....	92	.....	7,898	1,005
26 to 45 years	22,808	1,827	9,115	4	9,026	.....	3,117	.....	2,330	.....	46,396	1,831
46 to 60 years	2,732	457	2,339	.....	3,008	1	1,214	.....	1,182	.....	10,475	458
Over 60 years	199	59	191	1	369	.....	172	.....	158	.....	1,089	60
Total	32,375	3,712	12,929	5	13,520	1	4,728	.....	3,762	.....	67,314	3,718

AVERAGE EARNINGS PER MONTH OF HIGHER EMPLOYEES OF GOVERNMENT RAILWAYS.

Age.	Employees receiving per month—										Total.	
	Less than $13.70.		From $13.70 to $21.23.		From $21.42 to $31.85.		From $32.04 to $43.43.		$43.62 or over.			
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
12 to 18 years	8	13	5	.....	1	.....	.....	.....	.....	.....	14	13
19 to 25 years	28	877	500	5	285	2	77	.....	21	.....	911	884
26 to 45 years	802	11,549	24,201	16	20,085	1	4,099	.....	2,904	.....	52,191	11,566
46 to 60 years	52	2,744	6,342	1	8,118	5	1,864	.....	1,407	.....	17,783	2,750
Over 60 years	5	105	176	.....	141	1	47	.....	5	.....	374	106
Total	895	15,288	31,224	22	28,630	9	6,087	.....	4,337	.....	71,273	15,319

In considering this table account should be taken of the fact that the railway companies contribute materially in a great many ways to the support of their employees. About 15 per cent of all employees are housed by the companies. In addition, most of them provide free medical attendance and supplies in case of sickness, and make provision for pensions for their employees after they have become incapacitated for work through accident or old age. The average value of all of these benefits is estimated to be equivalent to a 15 per cent addition to

the wages. The average wages of employees according to age periods is not given, but the average wages of the men is stated to be $0.0869 per hour.

Statistica degli Scioperi avvenuti nell' Industria e nell' Agricoltura durante l' anno 1894. Ministero di Agricoltura, Industria e Commercio, Direzione Generale della Statistica. 1896. 52 pp.

This report emanates from the general bureau of statistics of the Italian department of agriculture, industry, and commerce. In presenting it here the same general plan is followed with the data for 1894 as in "Strikes in Italy in recent years," published in Bulletin No. 1, which covered the period from 1879 to 1893, inclusive.

The report shows that in 1894 there were 109 strikes, of which 104 reported the number of strikers as 27,595, an average of 265 strikers to each strike. It appears that about one-half of the strikes took place in northern Italy, the main seat of the great industries; but Sicily and Lazio report also a great number. The total number of strikes in 1894 was less than during any one of the five years preceding (less strikers in 1889—23,322).

Of the 109 strikes, 12 were accompanied by acts of violence and 11 by minor disturbances. The rest were conducted in a perfectly orderly manner. It is an established fact that in 11 strikes the strikers received assistance from associations of resistance, but this number is certainly below the truth, as in many instances the assistance is not tendered openly but secretly.

A table, the details in which are given by provinces, shows that 19,766 of the 27,595 strikers were adult males, 3,890 adult females, and 3,939 children (15 years of age and under of both sexes), from which it appears that the females and children formed 28 per cent of the total number of strikers.

The most important strikes, so far as the number of persons involved is concerned, took place in the sulphur mines of Sicily and in the Government cigar factory at Lucca. None of these strikes terminated successfully.

The following table shows the average number of strikers to each strike for the years 1878 to 1894:

AVERAGE NUMBER OF STRIKERS PER STRIKE, 1878 to 1894.

Year.	Average number of strikers per strike.	Year.	Average number of strikers per strike.	Year.	Average number of strikers per strike.
1878	165	1884	296	1890	289
1879	144	1885	398	1891	272
1880	227	1886	177	1892	263
1881	212	1887	368	1893	253
1882	130	1888	293	1894	265
1883	193	1889	187		

This exhibit is followed by a table showing the number of strikes and strikers and per cent of whole number of each according to the causes for which strikes were undertaken:

CAUSES OF STRIKES, 1894.

Cause or object.	Strikes.		Strikers.	
	Number.	Per cent.	Number.	Per cent.
For increase of wages	46	44	17,685	64
For reduction of hours	12	12	2,539	9
Against reduction of wages	12	11	1,498	6
Against increase of hours	2	2	330	1
Other causes	32	31	5,543	20
Total classified	104	100	27,595	100
Not classified	5	.....	.....	.....
Grand total	109	.....	.....	.....

The following table shows the results of strikes for the year 1894:

RESULTS OF STRIKES, 1894.

Cause or object.	Succeeded.				Succeeded partly.				Failed.			
	Strikes.		Strikers.		Strikes.		Strikers.		Strikes.		Strikers.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
For increase of wages	18	39	2,720	15	18	39	4,511	26	10	22	10,454	59
For reduction of hours	2	17	155	6	4	33	1,359	54	6	50	1,025	40
Against reduction of wages	4	33	1,007	67	2	17	67	5	6	50	424	28
Against increase of hours	.....	.....	.....	.....	.....	.....	.....	.....	2	100	330	100
Other causes	*a* 11	36	*a*1,472	28	5	16	568	11	15	48	3,253	61
All causes	*a* 35	34	*a*5,354	19	29	28	6,505	24	39	38	15,486	57

a The figures as given are according to the summary table as printed in the report. It appears, from the detail table, however, that one strike of 250 strikers has been omitted in making up the summary.

In the following table are shown the per cents of strikes which succeeded, succeeded partly, and failed, together with the per cents of strikers engaged therein, for the years 1878–1891 to 1894.

RESULTS OF STRIKES, 1878–1891 to 1894.

Year.	Per cent of strikes.			Per cent of strikers.		
	Successful.	Partly successful.	Failed.	Successful.	Partly successful.	Failed.
1878–1891	16	43	41	25	47	28
1892	21	29	50	29	19	52
1893	28	38	34	29	44	27
1894	34	28	38	19	24	57

From this table it will be seen that the successful strikes increased steadily from 16 per cent in 1878–1891 to 34 per cent in 1894. This rising tendency, however, does not hold good when the per cent of persons

benefited is considered, which is shown to have been less in 1894 than in preceding years.

The following table shows, for 1894, a classification of strikes according to the industries in which the strikers were employed:

STRIKES, BY INDUSTRIES, 1894.

Industry.	Strikes.		Strikers.
	Total.	Reporting number of strikers.	
Weavers, spinners, and carders	15	15	2,514
Miners and ore diggers	21	16	12,318
Mechanics	3	3	182
Founders	2	2	35
Railroad employees	3	3	1,597
Day laborers	12	12	3 044
Masons and stonecutters	8	8	1,130
Kiln and furnace tenders	3	3	482
Hat makers	2	2	258
Tanners	11	11	603
Dyers	5	5	412
Bakers and pastry cooks	3	3	535
Joiners	1	1	50
Glass workers	1	1	25
Omnibus drivers and conductors	3	3	288
Boatmen	1	1	32
Cart drivers	3	3	540
Porters and coal carriers	2	2	105
Other industries	10	10	2,53
Total	109	104	27,595

In 1894 there were 323,261 days of work lost in 103 strikes reported, which shows an average loss of 3,138 days of work per strike.

By the law of June 15, 1893, boards of arbitration and conciliation were authorized to be organized in the various industrial centers of the Kingdom, but up to the end of 1894 none had been created.

The report closes with a fully annotated table showing, by provinces and for each strike, the locality, date of beginning, occupation, sex, and number of strikers, cause or object of strike, result, whether accompanied by threats or acts of violence, duration of strike in days, and total number of days of work lost.

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, will be continued in successive issues, dealing with the decisions as they occur. All material parts of the decisions are reproduced in the words of the courts, indicated, when short, by quotation marks, and when long, by being printed solid. In order to save space immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

APPROPRIATION OF MONEY IN AID OF TEXTILE SCHOOLS—CONSTITUTIONALITY OF STATUTE—*Hanscom et al. v. City of Lowell. 43 Northeastern Reporter, page 196.*—This case was brought in the supreme judicial court of Massachusetts, on a petition of ten taxpayers of the city of Lowell, against the defendant city, to restrain the payment of $25,000, appropriated by the city council, to be paid to the trustees of the Lowell Textile School. The money was voted in accordance with chapter 475 of the acts of 1895, which provides that citizens of cities in which certain conditions exist may associate themselves together, by agreement in writing, for the purpose of establishing and maintaining a textile school, and that any city in which such a corporation is organized may appropriate and pay to such corporation a sum of money, not to exceed $25,000.

The court rendered its decision February 29, 1896, and dismissed the petition. The opinion of said court was delivered by Judge Allen, and is as follows:

The establishment of a textile school in a large manufacturing city may be of such special and direct benefit to the city as to warrant the appropriation by it of a sum of money in aid of the school, although persons from elsewhere may be members or trustees of the corporation, or may be admitted to be taught therein. It is in aid of manufactures, which the constitution (part 2, c. 5, sec. 2) enjoins the legislature to encourage, and the statute (St. 1895, c. 475) falls within the doctrine of Merrick *v.* Inhabitants of Amherst, 12 Allen, 500, and is constitutional. See also Jenkins *v.* Inhabitants of Andover, 103 Mass., 94, 103. Petition dismissed.

ASSIGNMENT FOR THE BENEFIT OF CREDITORS—PREFERRED CLAIMS—WAGES—*In re Scott et al. 42 Northeastern Reporter, page 1079.*—In the final accounting by William E. Scott and Alexander T. Brown, assignees of William A. Drake, the supreme court of New York, general term, rendered a judgment reversing an order of the county court of Orange County, denying a motion by Laura C. Aber for allowance of claim for wages, prepared under chapter 283 of the laws of

1886. From this judgment the National Bank of Port Jervis, a creditor, appealed to the court of appeals, which rendered its decision February 25, 1896, reversing the judgment of the supreme court. The following is quoted from the opinion of the court of appeals as delivered by Judge Haight:

The question raised upon this appeal calls for a construction of chapter 283 of the laws of 1886, which is as follows: "In all distributions of assets under all assignments made in pursuance of this act the wages or salaries actually owing to the employees of the assignor or assignors, at the time of the execution of the assignment, shall be preferred before any other debt, and should the assets of the assignor or assignors not be sufficient to pay in full all the claims preferred, pursuant to this section, they shall be applied to the payment of the same pro rata to the amount of each such claim."

It is contended on behalf of the appellants that the wages or salaries preferred under the provisions of this act are those only of employees who are actually in the employ of the assignor at the time of his executing the assignment. We are unable to adopt this view. It would practically nullify the provisions of the act. The assignor by discharging his employees the day before the execution of the assignment could evade its provisions. The language of the act does not require such a construction. It is the "wages or salaries actually owing to the employees of the assignor or assignors at the time of the execution of the assignment" that are preferred, and the preference is not limited to the wages and salaries of those in the employ of the assignor at the time of the assignment. This, we think, is the fair reading and meaning of the provision.

There is, however, one question which we think the general term has overlooked, and that is that the act was not intended to be retroactive, and to create a preference in favor of employees for wages earned prior to its passage. This question was considered in the case of People *v.* Remington, supra [16 Northeastern Reporter, p. 680], with reference to the act creating a preference of the wages of employees, etc., in corporations where a receiver had been appointed. It was held that that act was not retroactive, and, as we have seen, the views there expressed have been approved by this court. That act and the one we now have under review, so far as this question is concerned, are similar, and the same construction should be given to each.

ATTORNEYS' FEES IN SUITS FOR WAGES—LIEN FOR WAGES—*Ackley v. Black Hawk Gravel Mining Co. et al. 44 Pacific Reporter, page 330.*—This action was brought in the superior court of Sierra County, Cal., by one David Ackley to establish and enforce a lien for wages. A judgment was rendered for the plaintiff and the defendants carried the case on appeal to the supreme court of the State. Said court rendered its decision March 24, 1896, and its opinion, delivered by Commissioner Searls, and containing a statement of the facts in the case, is given below:

This is an action to recover from the corporation defendant for work, labor, and services performed by plaintiff for said defendant, and to

have the value thereof declared a lien upon the property of said defendant under and pursuant to an act of the legislature of the State of California approved March 31, 1891, entitled "An act to provide for the payment of the wages of mechanics and laborers employed by corporations." The other defendants are made parties, and averred to have, or claim to have, some interest in the property of the corporation or lien thereon, etc. Plaintiff had judgment against the corporation for $397 for wages, a counsel fee of $100, and costs taxed at $27.35, making a total of $524.35, which was declared to be a valid lien upon the property of the corporation defendant described therein, and superior and paramount to any lien or interest of the other defendants, and decreeing the property so subject to said lien to be sold in satisfaction thereof. Defendants appealed from the judgment, and the cause comes up on the judgment roll without a statement or bill of exceptions. The statute in question is brief, and we quote it in full. It is as follows:

"SECTION 1. Every corporation doing business in this State shall pay the mechanics and laborers employed by it the wages earned by and due them weekly or monthly, on such day in each week or month as shall be selected by said corporation.

"SEC. 2. A violation of the provisions of section one of this act shall entitle each of the said mechanics and laborers to a lien on all the property of said corporation for the amount of their wages, which lien shall take preference over all other liens, except duly recorded mortgages or deeds of trust; and in any action to recover the amount of such wages, or to enforce said lien, the plaintiff shall be entitled to a reasonable attorney's fee, to be fixed by the court, and which shall form part of the judgment in said action, and shall also be entitled to an attachment against said property."

Various points are made by appellant in favor of reversal, one only of which need be noticed. The complaint is for work, labor, and services performed by plaintiff for the corporation defendant, and, so far as essential to the point in hand, is as follows: "That between the 1st day of May, 1892, and the 1st day of May, 1894, plaintiff performed twenty-four months' service for defendant, Black Hawk Gravel Mining Company, as watchman of its property, known as the 'Jenkins Ranch property,' hereinafter described, which said services were performed by plaintiff for said defendant corporation at its request; that said services were reasonably worth $2,190; that no part thereof has been paid."

The findings are in almost the exact language of the complaint, except that the court finds the value of the services were $480, and that $83 has been paid on account thereof. There is no allegation or finding that plaintiff was employed by the week or month, or that his wages were "due weekly or monthly."

In Keener *v.* Irrigation Company (decided by department 1 of this court, December 31, 1895), 43 Pac., 14, this same statute was under review, and the court, speaking through Harrison, J., said: "By the terms of the first section of this act, it does not apply to all corporations, but only to those who, while doing business in this State, employ laborers and mechanics by the week or month, whose wages, under the terms of their employment, are payable weekly or monthly. It does not purport to impose upon those corporations any duty or liability toward all the mechanics or laborers whom it may employ, or to create a right in favor of those of its employees whose wages are not earned or payable by the week or by the month. As the remedy sought to be enforced herein exists only by virtue of the statute, it was incumbent upon the plaintiff to bring himself within the terms of the statute,

and to show that the wages earned by him were 'due weekly or monthly.' His complaint is, however, defective in this respect, and contains no allegation concerning the times at which the wages were payable, or that he was employed at weekly or monthly wages; and, from the allegations in reference thereto, it would seem that there was no agreement upon this point." Following the case above quoted, we add: As the plaintiff is not entitled to avail himself of the provisions of the act of 1891, that provision of the judgment allowing him a counsel fee was unauthorized. We recommend that the judgment in favor of the plaintiff for the sum of $397, as wages and costs, be affirmed, and that that portion of the judgment awarding counsel fees, and declaring that plaintiff is entitled to a lien upon the property of the corporation defendant, and directing a sale of such property, be reversed, and that appellant recover its costs on this appeal.

CHINESE LABORERS—DEPORTATION—*United States v. Sing Lee. 71 Federal Reporter, page 680.*—This case arose under chapter 50 of the acts of Congress of 1891–92, as amended by chapter 14 of the acts of Congress of 1893–94, providing for the restriction of Chinese immigration. The action was brought in the United States district court for the district of Oregon, and the decision of said court was rendered January 7, 1896.

The facts in the case are fully set forth in the opinion delivered by District Judge Bellinger, which appears below in part:

This is a proceeding for the deportation of the defendant on the ground that he is a Chinese laborer, and that he has failed to register as required by law. The defendant is a resident of the State of California, where he has lived many years. He swears, and proves by the testimony of a number of Chinese witnesses, that he is a merchant doing business in San Francisco. It appears that he is the lessee of some fruit land in California for a term of years, upon which he employs laborers; and the fact is stipulated in the case that he performed manual labor in aiding the laborers employed by him to work said farm in caring for the fruit during its growth and picking. It is * * * established that a Chinese person who works for others for short periods of time, or who regularly works in the manufacture of fabrics for sale by himself, is a laborer, within the meaning of the Chinese exclusion acts. The lease referred to, as appears from the copy in evidence, was entered into August 6, 1894, and is for a certain ranch adjoining the town of Penryn, in Placer County, Cal. The term of the lease is from October 1, 1894, to the last day of September, 1897. The labor performed by the defendant was performed, it must be presumed, within the term of the lease, and after October 1, 1894; and this presents the question whether a person shown to have been a merchant at the date of the act in question [chapter 50, acts of 1891–92], and who continued to be such merchant until after the time within which laborers were permitted to register, is liable to deportation if, after such time, he becomes a laborer. I am of the opinion that such a person is not liable to deportation.

The act in question made it the duty of all Chinese laborers within the United States at the time of the passage of the act to procure a

certificate of residence. A merchant was not required to procure such certificate. Being, therefore, lawfully here, and having observed all the requirements of the acts of Congress affecting his race, it is not the policy of the law to make an act of labor thereafter performed by him a crime punishable with heavy penalties.

In addition to these considerations, the fact that this defendant has had for many years a fixed residence in California, and that he was arrested here while en route to Montana, to which point he had a through ticket, is against this proceeding. A practice like this is likely to result in oppression and injustice. If the defendant is a laborer, as is claimed, and has been so during the lease in question, he was liable to deportation in that jurisdiction, where the facts as to his case are easily obtainable, and where the law can be vindicated without inconvenience or danger of injustice. The findings will be for the defendant, and the order of the court is that he be discharged from arrest.

COAL MINING—WEIGHING PRODUCT BEFORE SCREENING—*Martin v. State. 42 Northeastern Reporter, page 911.*—The appellant was convicted and fined $100 on information and affidavit filed in the circuit court of Parke County, Ind., for a violation of sections 5 and 7 of the act approved March 2, 1891 (p. 57, acts of 1891), concerning coal mining, and appealed to the supreme court of the State. Section 5 of said act reads as follows:

All coal mined in this State under contract for payment by the ton or other quantity, shall be weighed before being screened, and the full weight thereof shall be credited to the miner of such coal, and eighty pounds of such coal as mined shall constitute a bushel, and two thousand pounds of coal as mined shall constitute a ton: *Provided*, That nothing in this act shall be so construed as to compel payment for sulphur, rock, slate, black-jack, or other impurities, including dirt, which may be loaded with or amongst the coal.

The affidavit and information charged that appellant, Martin, on February 13, 1894, was superintendent of mine No. 8 of the Parke County Coal Company, and that one William Cherry was employed by said company to mine coal at the rate and price of 70 cents per ton; that said Cherry mined a quantity of coal, exceeding 3½ tons, for said company, and that said Martin unlawfully failed and neglected to credit to said Cherry the full weight of such coal before it was screened, but screened it before it was weighed. The supreme court, January 29, 1896, reversed the judgment of the trial court and instructed it to sustain appellant's motion for a new trial. The opinion, delivered by Judge McCabe, contains the following:

Among other things, it is said by the learned counsel for the appellant that it is undisputed that the coal mined by Cherry contained sulphur, slate, black-jack, and other impurities. It further clearly appears that section 5 of the act of 1891 is impossible of execution, from the following evidence of Cherry: "Q. Is there any known practicable way in the business of bituminous coal mining to separate the sulphur, slate, black-jack, dirt, and other impurities from the fine coal

or the slack?—A. No; the only thing that can be done is to separate the lump coal from the slack. The part that does not pass through the screen is called 'lump coal,' and is the coal of commerce. The part that passes through the screen is called 'slack,' and is composed of the fine coal mixed with sulphur, slate, black-jack, dirt, and other impurities. There is no way known to the business of mining by which the fine coal of the slack can be separated from the sulphur, black-jack, dirt, and other impurities contained in the slack. Q. How about the lump coal?—A. Most of the impurities are contained in the slack; but the lump coal also contains some sulphur, slate, black-jack, and other impurities. It is impossible, in any practicable way, to separate the coal of the lump coal from the sulphur, slate, black-jack, and the like contained in the lump coal. Q. Is there any practicable way in the business of coal mining, either before or after screening, by which the pure coal may be completely and fully separated from the sulphur, slate, black-jack, and other impurities?—A. No; all that can be done is to separate the lump coal, with its impurities, from the slack, with its impurities, by screening. Q. State whether or not, in your opinion, it was practical to mine the coal you were working in that day and weigh and pay for it before screening such dirt and other small refuse matter?—A. It would have been impossible to have weighed the coal that I mined that day before screening it, and given me credit with the weight thereof, without also including in such weights the weight of such dirt and other refuse matter." While section 5 imperatively requires the coal to be weighed before it is screened, and the full weight thereof to be credited to the miner of the same, yet the proviso qualified such requirement by providing "that nothing in this act shall be so construed as to compel payment for sulphur, rock, slate, black-jack, or other impurities," etc. This was the State's evidence, and stands uncontradicted; and from it the conclusion is irresistible that the only way possible to avoid paying for mining the impurities excepted out of the statute was by screening before weighing the coal, and even then some impurities would be paid for, but small in quantity compared with that resulting from weighing before screening the particular coal mined by Cherry involved in this prosecution. The provision as imperatively requires the statute to be so construed as not to compel payment for such impurities as it requires any coal mined to be weighed before it is screened; and, as the evidence makes it clear that the only way to avoid payment for such impurities in the case of the particular coal here involved was to screen it before it was weighed, therefore the failure to weigh before it was screened was not a violation of the fifth section, and hence the appellant, under the evidence, was not liable to the penalty provided in the seventh section. Therefore the finding of the court was contrary to the law and the evidence, which was assigned as a cause in the motion for a new trial.

EMPLOYERS' LIABILITY—ASSUMPTION OF RISKS BY EMPLOYEE—CONSTRUCTION OF THE "FACTORY ACT"—*Knisley v. Pratt et al. 42 Northeastern Reporter, page 986.*—This action was brought by Sarah Knisley against Pascal P. Pratt and others to recover damages for the loss of her left arm. The plaintiff, who was operating a "punching machine" in a hardware factory, was engaged in cleaning it while it

was in motion, by rubbing the dirt and oil off the punch and uprights with a piece of waste held in her left hand; and her hand was caught between the cogwheels, causing such injuries to it and the arm as to necessitate amputation of the latter near the shoulder. The judgment of the trial court was given for the defendants and the plaintiff appealed to the supreme court of the State (New York) which, in general term, rendered a judgment granting the plaintiff a new trial. From this judgment the defendants appealed to the court of appeals of the State, which, on February 18, 1896, reversed the order of the supreme court and ordered a judgment for the defendants against the plaintiff on nonsuit with costs. The opinion of the court of appeals, delivered by Judge Bartlett, shows the facts in the case, and the following is quoted therefrom:

Plaintiff, being of full age, entered the employ of defendants in May or June, 1890, and the accident happened September 24, 1891. She testified that she worked, off and on, about three months on these punching machines prior to the accident, sometimes an hour, sometimes half a day at a time, as required; that up to the time of the accident she had worked twelve different times, on different days, upon one of the punching machines, and had cleaned it about seven or eight times. It is insisted, on behalf of the plaintiff, that even if, under the admitted facts, she would by the rules of the common law be deemed to have assumed, not only the ordinary but the obvious risks of the business, yet the provisions of the statute commonly known as the "Factory act" would enable her to recover. Laws 1890, p. 753, c. 398, amending laws 1886, c. 409, entitled "An act to regulate the employment of women and children in manufacturing establishments and to provide for inspectors to enforce the same."

The statute [section 12 of above act] provides that it shall be the duty of the owner of any manufacturing establishment to furnish, in the discretion of the factory inspector, belt shifters, for the purpose of throwing on or off belts or pulleys. It also provides absolutely that cogs shall be properly guarded. It is admitted that the cogwheels were unguarded on this machine. The plaintiff was injured by reason of that condition of the cogwheels, and it appears that a piece of sheet iron, put in between the upright and the gear wheels, would have protected the hand of the operative while cleaning the machine when in motion. The defendants are chargeable, therefore, with one omission only under the statute, viz, a failure to properly guard the cogwheels of the punching machine.

In order to sustain the judgment in favor of plaintiff, it is necessary to hold that, where the statute imposes a duty upon the employer the performance of which will afford greater protection to the employee, it is not possible for the latter to waive the protection of the statute, under the common-law doctrine of obvious risks. We regard this as a new and startling doctrine, calculated to establish a measure of liability unknown to the common law, and which is contrary to the decisions of Massachusetts and England under similar statutes.

It should be remarked at the outset that the factory act in this State does not, in terms, give a cause of action to one suffering an injury by reason of the failure of the employer to discharge his duty thereunder. An action for such injury is the ordinary common-law action for negligence, and subject to the rules of the common law.

The principle contended for seems to rest, if it can be maintained at all, upon a question of public policy. The factory act, it is said, is passed to regulate the employment of women and children, and imposes upon the employer certain duties, and subjects him to specified penalties in case of default; that a sound public policy requires the rigid enforcement of this act, and it would contravene that policy to permit an employee, by implied contract or promise, to waive the protection of the statute. We think this proposition is essentially unsound, and proceeds upon theories that can not be maintained. It is difficult to perceive any difference in the quality and character of a cause of action, whether it has its origin in the ancient principles of the common law, in the formulated rules of modern decisions, or in the declared will of the legislature. Public policy in each case requires its rigid enforcement, and it was never urged in the common-law action for negligence that the rule requiring the employee to assume the obvious risks of the business was in contravention of that policy.

We are of the opinion that there is no reason in principle or authority why an employee should not be allowed to assume the obvious risks of the business, as well under the factory act as otherwise. There is no rule of public policy which prevents an employee from deciding whether, in view of increased wages, the difficulties of obtaining employment, or other sufficient reasons, it may not be wise and prudent to accept employment subject to the rule of obvious risks. The statute does, indeed, contemplate the protection of a certain class of laborers, but it does not deprive them of their free agency and the right to manage their own affairs.

The facts in the case at bar, whether it be considered as an action for negligence at common law or under the statute, show conclusively that the plaintiff assumed the obvious risk of working on the machine in operating which she was injured. It is impossible not to feel great sympathy for this unfortunate plaintiff, who has been maimed for life, but her recovery is barred by legal principles that are salutary and proper in the general administration of justice.

EMPLOYERS' LIABILITY—DEFECTIVE WAYS, WORKS, OR MACHINERY—*Geloneck v. Dean Steam Pump Co. 43 Northeastern Reporter, page 85.*—Action was brought in the superior court of Hampden County, Mass., by Otto G. Geloneck against the Dean Steam Pump Company to recover for personal injuries in moving machinery on trucks furnished by the defendants. The plaintiff relied principally upon clause 1 of section 1 of chapter 270 of the acts of 1887, which reads as follows:

Where, after the passage of this act, personal injury is caused to an employee, who is himself in the exercise of due care and diligence at the time:

(1) By reason of any defect in the condition of the ways, works, or machinery connected with or used in the business of the employer, which arose from or had not been discovered or remedied owing to the negligence of the employer or of any person in the service of the employer and intrusted by him with the duty of seeing that the ways, works, or machinery were in proper condition; * * * the employee, or in case

the injury results in death, the legal representatives of such employee, shall have the same right of compensation and remedies against the employer as if the employee had not been an employee of nor in the service of the employer, nor engaged in its work. * * *

The facts in the case were substantially as follows: A pump had been loaded onto a truck and the foreman in charge undertook to run it up into a room, but the pole handle, not being properly secured, swung around and caused the pump to topple over and fall upon the plaintiff, injuring him severely.

A verdict was given for the plaintiff in the superior court and judgment was rendered in his favor. The defendants carried the case, on exceptions to the charge of the judge, to the supreme court of the State, which rendered its decision February 25, 1896, sustaining the judgment of the lower court. In the opinion of said court, delivered by Judge Barker, the following language was used:

The jury were instructed, in substance, that, to constitute a defect in the condition of the ways, works, or machinery, it was not necessary that any particular instrument should be defective in itself; that, for instance, the plaintiff need not show that there was a fault in the truck, that it had a cracked wheel or a broken axletree, or something of that kind, which gave way; that, in the sense of the law, a thing may be found to be not reasonably safe and suitable, if it is insufficient and unsuitable for the purposes to which it is applied, and is intended to be applied, and under the conditions in which it is used, and is intended to be used; that the question is not limited to whether there is something which has a weak spot or crack, or is decayed, but it involves the inquiry whether the appliances, as they are put together and used, and intended to be used, are reasonably safe and suitable. In connection with this instruction, the jury was also told that the defendant was not obliged to have a faultless arrangement, or one with which nobody could find any fault, but only to use reasonable care to have things reasonably safe and suitable. These instructions were correct. An unsuitableness of ways, works, or machinery, for work intended to be done, and actually done, by means of them, is a defect, within the meaning of St. 1887, c. 270, sec. 1, cl. 1, although the ways, works, or machinery are perfect of their kind, in good repair, and suitable for some work done in the employer's business, other than the work in doing which their unsuitableness causes injury to the workmen.

In such a case the employer is wrong in furnishing appliances for a use for which they are unsuitable, and, in effect, in so ordering and carrying on his work that, without fault of the ordinary workman, the natural consequence will be that the appliances will be used for purposes for which they are unsuitable. The circumstance that the employer intends that his work shall be done in the manner and by the means in use when the accident occurs distinguishes the case from those in which he furnishes a stock of appliances from which the workman is to select such as are fit for the particular work in hand. Such an unsuitableness is neither accidental nor temporary, nor due to the negligence of a workman who is not charged with the duty of attending to the fitness of the ways, works, and machinery. Exceptions overruled.

MASTER AND SERVANT—TERM OF EMPLOYMENT—*Rosenberger v. Pacific Coast Railway Company. 43 Pacific Reporter, page 963.*—Action was brought by E. B. Rosenberger against the railroad company in the superior court of San Luis Obispo County, Cal. Judgment was given for Rosenberger and the railroad company appealed to the supreme court of the State, which rendered its decision February 21, 1896, affirming the judgment of the lower court. The facts of the case are stated fully in the opinion of the court, which is given in part below:

This cause was tried by the court and a jury, the plaintiff had judgment, and the defendant appeals therefrom, and from an order denying a new trial. The plaintiff claimed that he was employed by the defendant as an accountant for the period of one year, commencing November 24, 1893, at a salary of $1,800 per annum, payable in monthly installments of $150, and that he was discharged without cause March 24, 1894. This action was commenced, July 17, 1894, to recover three months' salary, from March 24 to June 24, 1893, amounting to $450, and for that sum he recovered judgment. The defense was that the employment was not for any definite time, and that his discharge was justifiable, because of his failure to give bond for the faithful discharge of his duties.

Prior to the employment in question, plaintiff was employed in a similar capacity in the offices of the Union Pacific Railway at Omaha, and had made an application for employment to the auditor of the Oregon Improvement Company, with which company defendant is connected. C. O. Johnson, defendant's superintendent, wrote plaintiff, November 4, 1893, to know whether he was still an applicant, and for information as to experience, salary required, etc. To this letter plaintiff replied, saying, as to salary, that it should be worth $1,800 or $2,000 a year. To this Johnson replied by telegraph, saying: "Yours ninth. Salary eighteen hundred. Change immediate if possible. Could probably arrange transportation. Wire earliest date."

Plaintiff arrived at San Luis Obispo the night of November 24, and on the morning of the 25th talked with Mr. Johnson an hour and a half, but plaintiff was unable to state with any particularity what was said, but, as he expressed it: "As near as I can give it, we arrived at an understanding to furnish me one year's employment upon satisfactory performance of my duties which I had undertaken. * * * I say that as near as I can recollect, we arrived at that understanding." Mr. Johnson testified that in this conversation nothing was said as to salary, or the term for which he was employed, but that it related wholly to the duties he was to perform. Though plaintiff was paid monthly, up to the time of his discharge, at the rate $150 per month, the correspondence constituted a hiring for a year. Section 2010 of the Civil Code provides: "A servant is presumed to have been hired for such length of time as the parties adopt for the estimation of wages. A hiring at a yearly rate is presumed to be for one year; a hiring at a daily rate for one day; a hiring by piecework for no specified time." The payment by the month, at the monthly proportion of the yearly rate, would not of itself be sufficient to change the contract to a hiring by the month; nor would the custom of the defendant, or of all railroad companies, to hire by the month convert the contract, created by the correspondence between the parties, which under the code constituted a contract for a year, into a contract by the month. If the correspondence had not fixed the term for which the plaintiff was hired, section 2011 of the Civil Code,

as well as the custom, would have made a hiring by the month. Upon this point the instruction to the jury was right, and the verdict justified by the evidence.

While it is the duty of an employee who has been wrongfully discharged to seek other employment, and thus diminish the damages sustained by him, he is not required, as a condition of recovery, to show that he has made such endeavor and failed. The burden is on the defendant to show that he could, by diligence, have obtained employment elsewhere. Whatever compensation may have been received in such employment is also to be shown by the defendant in mitigation of damages; otherwise the damages will be measured by the salary or wages agreed to be paid.

SUNDAY LABOR—BARBERS—CONSTITUTIONALITY OF STATUTE—*Ex parte Jentzsch. 44 Pacific Reporter, page 803.*—This case was brought before the supreme court of California on a petition by Leo Jentzsch for a writ of habeas corpus to secure his discharge from custody under a conviction for violation of section 310½ of the Penal Code, prohibiting barbers from keeping open their places of business or working at their trade on Sundays after 12 o'clock noon. The court rendered its decision April 17, 1896, declaring the above section unconstitutional, and from its opinion, delivered by Judge Henshaw, the following is quoted:

Petitioner was convicted under section 310½ of the Penal Code, which is a new section, enacted in 1895, and which provides as follows: "Every person who as proprietor, manager, lessee, employee, or agent keeps open or conducts, or causes to be kept open or conducted, any barber shop, bath house and barber shop, barber shop of a bathing establishment, or hair-dressing establishment, or any place for shaving or hair dressing used and conducted in connection with any other place of business or resort, or who engages at work or labor as a barber in any such shop or establishment on Sunday, or on a legal holiday, after the hour of 12 o'clock m. of said day, is guilty of a misdemeanor."

It is contended that the section is a violation of the following constitutional provisions:

Article 1, § 1: "All men are by nature free and independent, and have certain inalienable rights, among which are those of enjoying and defending life and liberty; acquiring, possessing and protecting property; and pursuing and obtaining safety and happiness."

Article 1, § 21: "No special privileges or immunities shall ever be granted which may not be altered, revoked or repealed by the legislature; nor shall any citizen, or class of citizens, be granted privileges or immunities which, upon the same terms, shall not be granted to all citizens."

Article 4, § 25, subsecs. 2, 33: "The legislature shall not pass local or special laws in any of the following enumerated cases, that is to say: Second. For the punishment of crimes and misdemeanors." "In all cases where a general law can be made applicable."

In construing so-called "Sunday laws" courts have variously regarded them, some from a religious view, others from a secular, and still others from an anomalous commingling of both. In this State they have never been upheld from a religious standpoint. Under a constitution which

guaranties to all equal liberty of religion and conscience, any law which forbids an act not in itself contra bonos mores, because that act is repugnant to the beliefs of one religious sect, of necessity interferes with the liberty of those who hold to other beliefs or to none at all. Liberty of conscience and belief is preserved alike to the followers of Christ, to Buddhist, and Mohammedan, to all who think that their tenets alone are illumined by the light of divine truth; but it is equally preserved to the skeptic, agnostic, atheist, and infidel, who says in his heart, "There is no God." So it has come to be the established rule in this State to view and construe such laws as civil and secular enactments. Thus construed, these laws, when decreed valid, are upheld as a proper exercise of the police power, as an exercise of the legislative prerogative to regulate the relations, contracts, intercourse, and business of society at large, and its particular members with respect to each other. Herein it is held that the legislature may pass laws for the preservation of health and the promotion of good morals—propositions which are indisputable

Says Mr. Justice Field, in Ex parte Newman, 9 Cal., 518: "Labor is a necessity, imposed by the condition of our race, and to protect labor is the highest office of our laws." It is this language which respondent quotes and relies upon in support of the validity of this penal statute. Upon the question thus presented of the proper limits of the police power much might be written, and much, indeed, will have to be written, ere just bounds are set to its exercise. But in this case neither time permits nor necessity demands the consideration. Still it may be suggested in passing that our Government was not designed to be paternal in form. We are a self-governing people, and our just pride is that our laws are made by us as well as for us. Every individual citizen is to be allowed so much liberty as may exist without impairment of the equal rights of his fellows. Our institutions are founded upon the conviction that we are not only capable of self-government as a community, but, what is the logical necessity, that we are capable, to a great extent, of individual self-government. If this conviction shall prove ill founded, we have built our house upon sand. The spirit of a system such as ours is therefore at total variance with that which, more or less veiled, still shows in the paternalism of other nations.

It may be injurious to health to eat bread before it is twenty-four hours old, yet it would strike us with surprise to see the legislature making a crime of the sale of fresh bread. We look with disfavor upon such legislation as we do upon the enactment of sumptuary laws. We do not even punish a man for his vices, unless they be practiced openly, so as to lead to the spread of corruption or to breaches of the peace or to public scandal. In brief, we give to the individual the utmost possible amount of personal liberty, and, with that guaranteed him, he is treated as a person of responsible judgment, not as a child in his nonage, and is left free to work out his destiny as impulse, education, training, heredity, and environment direct him. So, while the police power is one whose proper use makes most potently for good, in its undefined scope and inordinate exercise lurks no small danger to the Republic, for the difficulty which is experienced in defining its just limits and bounds affords a temptation to the legislature to encroach upon the rights of citizens with experimental laws none the less dangerous because well meant. We think the act under consideration gives plain evidence of such encroachment. It is sought to be upheld by the argument that it is a police regulation; that it seeks to protect labor against the oppression of capital. The people have passed the

law; let not the courts interfere with it. If the people are dissatisfied they may amend or repeal it.

It is not easy to see where or how this law protects labor from the unjust exactions of capital. A man's constitutional liberty means more than his personal freedom. It means, with many other rights, his right freely to labor, and to own the fruits of his toil. It is a curious law for the protection of labor which punishes the laborer for working. Yet that is precisely what this law does. The laboring barber, engaged in a most respectable, useful, and cleanly pursuit, is singled out from the thousands of his fellows in other employments and told that, willy nilly, he shall not work upon holidays and Sundays after 12 o'clock noon. His wishes, tastes, or necessities are not consulted. If he labors, he is a criminal. Such protection to labor, carried a little further, would send him from the jail to the poorhouse. How comes it that the legislative eye was so keen to discern the needs of the oppressed barber, and yet was blind to his toiling brethren in other vocations? Steam-car and street-car operatives toil through long and weary Sunday hours; so do mill and factory hands. There is no Sunday period of rest, and no protection for the overworked employees of our daily papers. Do these not need rest and protection? The bare suggestion of these considerations shows the injustice and inequality of this law. In brief, whether or not a general law to promote rest from labor in all business vocations may be upheld as within the due exercise of the police power as imposing for its welfare a needed period of repose upon the whole community, a law such as this certainly can not. A law is not always general because it operates upon all within a class. There must be back of that a substantial reason why it is made to operate only upon a class, and not generally upon all. As was said in Passadena *v.* Simpson, 91 Cal., 238, 27 Pac., 604: "The conclusion is that, although a law is general and constitutional when it applies equally to all persons embraced in a class founded upon some natural or intrinsic or constitutional distinction, it is not general or constitutional if it confers particular privileges or imposes peculiar disabilities or burdensome conditions in the exercise of a common right upon a class of persons arbitrarily selected from the general body of those who stand in precisely the same relation to the subject of the law."

And in Darcy *v.* City of San Jose, 104 Cal., 642, 38 Pac., 500: "The classification, however, must be founded upon differences which are either defined by the constitution or natural, and which will suggest a reason which might rationally be held to justify the diversity of legislation." In the case of our cities the constitution itself decrees a classification by population, and the differing exigencies of municipal government require that laws operating upon any class should be held general; otherwise the constitutional scheme itself is overthrown. But in a law such as this no reason has been or can be shown why the followers of one useful and unobjectionable employment should be debarred from the right to labor upon certain days, and others in like classes of employment be not so debarred. If it be constitutional to single out one such class, and debar its members from the right to labor on one day in the week, it would be constitutional to prohibit them from following their vocation upon six days of the week. When any one such class is singled out and put under the criminal ban of a law such as this, the law not only is special, unjust, and unreasonable in its operation, but it works an invasion of individual liberty—the liberty of free labor, which it pretends to protect. Here * * * the designated class is based upon no distinction, and, as is said by Judge

Cooley: "Everyone has a right to demand that he be governed by general rules; and a special statute that singles his case out as one to be regulated by a different law from that which is applied in all similar cases would not be legitimate legislation, but an arbitrary mandate, unrecognized by the law." The prisoner is discharged.

SUNDAY LABOR—BARBERS—CONSTITUTIONALITY OF STATUTE—*State v. Granneman. 33 Southwestern Reporter, page 784.*—William Granneman was convicted in the St. Louis court of criminal corrections of plying his trade as a barber on Sunday in violation of the act approved March 18, 1895, and from the judgment of said court he appealed to the supreme court of Missouri.

The act under which the conviction was had reads as follows:

SECTION 1. It shall be a misdemeanor for any person to carry on the business of barbering on Sunday.

SEC. 2. Anyone found guilty of violating the first section of this act shall be fined not less than twenty-five dollars, nor more than fifty dollars, or imprisoned in the county jail not less than fifteen nor more than thirty days, or both, in the discretion of the court.

January 21, 1896, the supreme court rendered its decision in this case, declaring the above act unconstitutional and reversing the judgment of the lower court. From the opinion of said court, delivered by Judge Burgess, the following is quoted:

Defendant's first contention is that the act of the general assembly, under which the conviction was had, is in conflict with section 53, article 4, of the constitution of this State, and therefore void.

The section of the constitution with which it is claimed the law is in conflict provides that "the general assembly shall not pass any local or special law. * * * And where a general law can be made applicable, no local or special law shall be enacted; and whether a general law could have been made applicable in any case is hereby declared a judicial question, and as such shall be judicially determined, without regard to any legislative assertion on that subject."

Barbering is laboring, and the object of the act is to enforce an observance of the Sabbath, and to prohibit that kind of labor on that day. The policy of our laws is to compel the observance of Sunday as a day of rest, and if this may be done by a general law, applicable alike to all classes and kinds of labor, then the act falls within the inhibition of the paragraph of the constitution quoted, which prohibits the legislature from passing any local or special law, where a general law can be made applicable. That a general law prohibiting all kinds of labor on Sunday may not only be passed, but that we have such a law now upon our statute book, is indisputable. 1 Rev. St. 1889, § 3852. The fact that laboring on Sunday may be prohibited by proper legislation, as a police regulation, does not place the act beyond or without the inhibition of the constitution.

If the act is valid, then why may not the legislature by one act prohibit the farmer from laboring on Sunday, by another a blacksmith, and so on until all kinds of labor on that day are prohibited? Clearly, this may be done by a general law embracing all kinds of labor. The object

of the constitution is manifest. It was to prohibit special and local legislation, and to substitute general law in place of it, wherever by a general law the same ends could be accomplished. While we recognize the wholesome rule that the invalidity of an act of the legislature passed in conformity with the mandates of the constitution should appear beyond a reasonable doubt before we assume to pronounce it void, there is still another rule, alike obligatory on us, which requires us to pronounce such a law invalid when it clearly appears to be so by reason of its being in conflict with the constitution. Our conclusion is that the law is invalid, because in conflict with the constitution. The judgment is reversed, and defendant discharged.

SUNDAY LABOR—BARBERS—CONSTITUTIONALITY OF STATUTE—*People v. Havnor. 43 Northeastern Reporter, page 541.*—Henry J. Havnor was convicted of carrying on the business of a barber in the city of New-York after 1 o'clock p. m. on Sunday in violation of the provisions of chapter 823 of the acts of 1895. The judgment of the trial court was affirmed by the appellate division of the supreme court of New York and the defendant appealed to the court of appeals of the State, which rendered its decision April 14, 1896, and affirmed the judgments of the lower courts. The following is quoted from the opinion of said court, which was delivered by Judge Vann:

The main ground upon which the defendant asks us to reverse the judgment against him is that the statute under which he was convicted is in conflict with that provision of the constitution which provides that "no person shall be deprived of life, liberty or property without due process of law." Const., art. 1, § 6. The statute in question, entitled "An act to regulate barbering on Sunday," provides that "any person who carries on or engages in the business of shaving, hair cutting or other work of a barber on the first day of the week shall be deemed guilty of a misdemeanor * * * provided that in the city of New York and the village of Saratoga Springs barber shops * * * may be kept open and the work of a barber performed therein until one o'clock of the afternoon of the first day of the week." Laws 1895, c. 823. The defendant claims that this statute deprives him to a certain extent of his "liberty," by preventing him from carrying on a lawful calling as he wishes, and also of his "property," by preventing the free use of his premises, tools, and labor, and thus rendering them less productive. It is not claimed that his occupation is of a noisy nature, or that he so carried on his business as to disturb the peace, quiet, and good order of the neighborhood, or that the act for which he was convicted, if done on any day of the week other than the first, or at any hour of that day prior to 1 o'clock in the afternoon, would have been a violation of law. Nor is it claimed that the conviction was authorized by the common law, or that it was based upon any statute except the one above cited, and, indeed, the judgment of the court of special sessions expressly refers to that act, and adjudges the defendant guilty of a misdemeanor because he violated its command.

The phrase "due process of law" is not satisfied by a judgment pronounced, after an opportunity to be heard, by a court of competent jurisdiction, in accordance with the provisions of a statute, unless that statute accords with the provisions of the fundamental law. In a broad

sense, whatever prevents a man from following a useful calling is an invasion of his "liberty," and whatever prevents him from freely using his lands or chattels is a deprivation of his "property." Yet, during the history of our State, many laws have been passed which, to some extent, have interfered with the right to liberty and property; but their accord with the constitution has seldom been questioned, and, when questioned, has been generally sustained. The power of taxation, the right to preserve the public health, to protect the public morals, and to provide for the public safety, may interfere somewhat with both liberty and property, yet proper statutes to effect these ends have never been held to invade the guaranties of the constitution. While the confinement of the insane or of those afflicted with contagious diseases infringes upon personal liberty, and the destruction of buildings to prevent the spread of fire, the exercise of the power of eminent domain, and the prevention of cruelty to animals encroach upon the right to property, still the proper exercise of these powers, under the authority of the legislature, although constant and known of all men, gives rise to no question of moment under the constitution. The sanction for these apparent trespasses upon private rights is found in the principle that every man's liberty and property is, to some extent, subject to the general welfare, as each person's interest is presumed to be promoted by that which promotes the interest of all. Dependent upon this principle is the great police power, so universally recognized, but so difficult to define, which guards the health, the welfare, and the safety of the public. While this power may not be employed ostensibly for the common good, but really for an ulterior purpose, when its object and effect are manifestly in the public interest, as was said in the Jacobs Case, "it is very broad and comprehensive, and * * * under it the conduct of an individual and the use of property may be regulated so as to interfere, to some extent, with the freedom of the one and the enjoyment of the other." In the exercise of this power the legislature has the right, generally, to determine what laws are needed to preserve the public health and protect the public safety, yet its discretion in this respect is not wholly without limit, for our courts have been steadfast in holding that the statute must have some relation to the general welfare; that the purpose to be reached must be a public purpose, and that "the law must in fact be a police law." Thus it has been held that "an act to improve the public health by prohibiting the manufacture of cigars and preparation of tobacco in any form in tenement houses in certain cases" (Laws 1884, c. 272) was unconstitutional, because it did not tend to promote the public health, and that this was not the end actually aimed at. For the same reason "an act to prevent deception in sales of dairy products" (Laws 1884, c. 202) was declared to conflict with the constitution, as it absolutely prohibited an innocent industry that was not fraudulently conducted, solely for the reason that it competed with another, and might reduce the price of an article of food. In a recent case an act prohibiting the sale of any article of food, upon the inducement that something would be given to the purchaser as a premium or reward (Laws 1887, c. 691), was held to be an unauthorized invasion of the rights of property and an improper exercise of the police power of the State. It was expressly declared in that case that the courts must be able to see, upon a perusal of the enactment, that there is some fair, just, and reasonable connection between it and the common good, and that, unless such relation exists, the statute can not be upheld as an exercise of the police power. Subject, however, to the limitation that the real object of the statute must appear, upon

inspection, to have a reasonable connection with the welfare of the public, the exercise of the police power by the legislature is well established as not in conflict with the constitution. When thus exercised, even if the effect is to interfere to some extent with the use of property or the prosecution of a lawful pursuit, it is not regarded as an appropriation of property or an encroachment upon liberty, because the preservation of order and the promotion of the general welfare, so essential to organized society, of necessity involve some sacrifice of natural rights.

The vital question, therefore, is whether the real purpose of the statute under consideration has a reasonable connection with the public health, welfare, or safety. The object of the act, as gathered from its title and text, was to regulate the prosecution of a particular trade on Sunday, by prohibiting it from being carried on as a business on that day, except in two localities, to which the prohibition applies only after a certain hour. It does not require the observance of the Sabbath as a holy day, or in any sense as a religious institution, as is evident from the fact that the entire day is left open to all secular employments but one, and a part of the day, in certain places, to that. There is nothing in the act to prevent the defendant from carrying on his trade "in any manner or in any place that he pleases. He is simply prohibited from carrying on that trade upon Sunday." The peculiar character of the first day of the week, not simply on account of the obligations of religion, but as a day of rest and recreation, has been recognized for time out of mind both by the legislature and the courts. Statutes passed upon the subject while we were a colony of Great Britain, as well as under the various constitutions in force since our organization as a State, have, so far as appears, been uniformly enforced by the courts. Similar laws in other States, and especially those which require the closing of places of business on Sunday, have generally been sustained.

While questions have been raised as to noiseless and inoffensive occupations that can be carried on by one individual without requiring the services of others, as well as to persons who observe the seventh instead of the first day of the week, still the rule is believed to be general throughout the Union, although not generally enforced, that the ordinary business of life shall be suspended on Sunday, in order that thereby the physical and moral well-being of the people may be advanced. The inconvenience to some is not regarded as an argument against the constitutionality of the statute, as that is an incident to all general laws. Sunday statutes have been sustained as constitutional almost without exception; the most notable instance to the contrary (Ex parte Newman, 9 Cal., 502), decided by a divided court in an early day in California, having been subsequently overruled by the courts of that State (Ex parte Andrews, 18 Cal., 685; Ex parte Koser, 60 Cal., 202). The leading case in our own State upon the subject is that of Lindenmuller *v.* People (33 Barb., 548), in which Judge Allen discussed the common law, as well as legislation affecting the Sabbath, with great force and clearness. He held, in substance, that the body of the constitution recognizes Sunday as a day of rest, and an institution to be respected, by not counting it as a part of the time allowed to the governor for examining bills submitted for his appoval; that the Sabbath exists as a day of rest by the common law, without the necessity of legislative action to establish it; and that the legislature has the right to regulate its observance as a civil and political institution. That case was expressly approved in Neuendorff *v.* Duryea (69 N. Y., 557, 561, 563), and was referred to as one "which has never been questioned in a court of

higher or equal authority," and "as declaring the law of this State." It was cited with approval in People *v.* Moses (140 N. Y., 214, 215; 35 N. E., 499), where Judge Earl, speaking for a majority of the court, said: "The Christian Sabbath is one of the civil institutions of the State, and that the legislature, for the purpose of promoting the moral and physical well-being of the people, and the peace, quiet, and good order of society, has authority to regulate its observance and prevent its desecration by any appropriate legislation, is unquestioned." While works of charity and necessity have usually been excepted from the effect of laws relating to the Sabbath, and sometimes, also, those persons who keep another day of the week, still quiet pursuits have not, even when they can be carried on without the labor of others, because general respect and observance of the day, so far as practicable, have been deemed essential to the interest of the public, including as a part thereof, those who prefer not to keep the day, as their health and morals are entitled to protection, even against their will, the same as those of any other class in the community. According to the common judgment of civilized men, public economy requires, for sanitary reasons, a day of general rest from labor, and the day naturally selected is that regarded as sacred by the greatest number of citizens, as this causes the least inconvenience through interference with business. (Lindenmuller *v.* People, supra.)

It is to the interest of the State to have strong, robust, healthy citizens, capable of self-support, of bearing arms, and of adding to the resources of the country. Laws to effect this purpose, by protecting the citizen from overwork, and requiring a general day of rest to restore his strength and preserve his health, have an obvious connection with the public welfare. Independent of any question relating to morals or religion, the physical welfare of the citizen is a subject of such primary importance to the State, and has such a direct relation to the general good, as to make laws tending to promote that object proper under the police power, and hence valid under the constitution, which "presupposes its existence, and is to be construed with reference to that fact." (Village of Carthage *v.* Frederick, 122 N. Y., 268, 273; 25 N. E., 480.) The statute under discussion tends to effect this result, because it requires persons, engaged in a kind of business that takes many hours each day, to refrain from carrying it on during one day in seven. This affords an opportunity, recurring at regular intervals, for rest, needed both by the employer and the employed, and the latter, at least, may not have the power to observe a day of rest without the aid of legislation. As Mr. Tiedeman says, in his work on Police Powers: "If the law did not interfere, the feverish, intense desire to acquire wealth, * * * inciting a relentless rivalry and competition, would ultimately prevent not only the wage earners, but likewise the capitalists and employers themselves, from yielding to the warnings of nature, and obeying the instinct of self-preservation, by resting periodically from labor." (Tied. Lim., 181.) As barbers generally work more hours each day than most men, the legislature may well have concluded that legislation was necessary for the protection of their health. We think that this statute was intended and is adapted to promote the public health, and thereby to serve a public purpose of the utmost importance, by promoting the observance of Sunday as a day of rest. It follows, therefore, that it does not go beyond the limits of legislative power by depriving anyone of liberty or property within the meaning of the constitution.

The learned counsel for the defendant, however, criticises the act in

question as class legislation, and claims that it is invalid under the fourteenth amendment to the Constitution of the United States, because it denies to barbers who do not reside in New York or Saratoga the equal protection of the laws. That amendment does not relate to territorial arrangements made for different portions of a State, nor to legislation which, in carrying out a public purpose, is limited in its operation, but, within the sphere of its operation, affects alike all persons similarly situated. It was not designed to interfere with the exercise of the police power by the State for the protection of health, or the preservation of morals. The statute treats all barbers alike within the same localities, for none can work on Sunday outside of New York and Saratoga, but all may work in those places until a certain hour. All are, therefore, treated alike under like circumstances and conditions, both in the privileges conferred and in the liabilities imposed. (Hayes *v.* Missouri, 120 U. S., 68; 7 Sup. Ct., 350.) As was said by the learned appellate division in deciding this case: "If the legislature has power to regulate the observance and prevent the desecration of the Sabbath, it has the power to say what acts in the different localities of the State it is necessary to prohibit to accomplish this purpose. It is quite conceivable that an act in one locality, thickly settled, should be prohibited, which in sparsely settled districts of the State could be allowed, and for this reason an act might be objectionable in one district, but not in another. All of these regulations have in view the proper observance of the day, and are within the discretion of the legislature."

We think that the statute violates no provision of either the Federal or State constitution, and that the judgment appealed from should, therefore, be affirmed.

This case was decided by a divided court, and strong dissenting opinions were delivered by Judges Gray and Bartlett.

VALIDITY OF CONTRACTS MAKING THE ACCEPTANCE OF BENEFITS FROM RAILWAY RELIEF FUND BY EMPLOYEES A WAIVER OF CLAIMS FOR PERSONAL INJURIES—CONSTITUTIONALITY OF STATUTE—*Shaver v. Pennsylvania Co. 71 Federal Reporter, page 931.*—This case was tried in the United States circuit court for the northern district of Ohio and the decision of said court was given January 28, 1896. The opinion was delivered by District Judge Ricks and contains a full statement of the facts in the case. The following language is quoted therefrom:

This suit was originally instituted in the court of common pleas for Lucas County, and, by due proceedings had, was removed by the defendant, which is a nonresident corporation, to this court. The plaintiff sues to recover for damages, because of certain negligence of the defendant and its agents in failing to have properly filled the space between the ties at a certain junction or cross-over in said county, by reason of which plaintiff's foot was caught while undertaking to uncouple cars. There are certain other acts of negligence charged in the petition, which it is not necessary here to consider. Plaintiff claims permanent injury, and damages in the sum of $25,000.

To this petition the defendant filed an answer, which, after denying the negligent acts charged in the petition, set up, as a third defense,

that said plaintiff, at the time he received the injuries complained of, was a member of the Voluntary Relief Department of the Pennsylvania Lines West of Pittsburg; that said Voluntary Relief Department is an organization formed for the purpose of establishing and managing a fund, known as a "relief fund," for the payment of definite amounts to employees contributing to the fund who, under the regulations, are entitled thereto when they are disabled by accident or sickness, and, in the event of their death, to their relatives or other beneficiaries specified in the application for insurance; that said relief fund is formed from voluntary contributions of the employees of the road, from contributions given by said defendant, the Pennsylvania Company, when necessary to make up any deficit, from income or profits derived from investments, or profits of the moneys of the fund, and such gifts and legacies as may be made for the use of the fund. The regulations governing said Voluntary Relief Department require that those who participate in the benefits of the relief fund must be employees in the service of the Pennsylvania Company, and be known as members of the relief fund. Defendant, further answering, says that no employee of the company is required to become a member of said relief fund; that the same is purely voluntary; that anyone who has become a member may withdraw at any time, upon proper notice; that contributions from such members cease by so withdrawing. The defendant further says that participation in the benefits of such relief fund is based upon the application of the beneficiaries; that on the 3d day of January, 1894, the plaintiff in this case, being in the employ of the defendant company, applied for membership, and in said application agreed to be bound by the regulations of the said fund. Defendant further says that the application for membership was approved and accepted at the office of the superintendent of the relief department, and that thereupon said plaintiff became a member of said relief fund. Defendant further says that, when said plaintiff received the injuries complained of, he thereupon became entitled to the benefits growing out of his membership in said relief fund, by reason of the injury so received while in said service; that said plaintiff thereupon immediately applied to said department for such benefits, and received monthly payments therefrom, amounting in all to the sum of $399, until the commencement of this action, on the 25th day of May, 1895. Defendant says that the plaintiff, in his application for membership, expressly agreed that, should he bring suit against either of the companies now associated in the administration of the relief department for damages on account of injury or death, payment of benefits from the relief fund on account of the same shall not be made until such suit is discontinued, or, if prosecuted to judgment or compromise, any payment of judgment or amount of compromise shall preclude any claim upon the relief fund for such injury or death. Defendant says that, the plaintiff having commenced suit against the defendant, payments to the plaintiff for the benefits accruing under said contract were suspended; and defendant says that by virtue of the agreement aforesaid, and the acceptance by the plaintiff of the benefits from said relief fund on account of said injuries, the said defendant thereupon became discharged from any and all liability to the plaintiff on account of said injuries. The plaintiff has demurred to this answer. He contends, first, that the contract set up in the answer is invalid; and, next, that it is in violation of an act of the legislature of Ohio passed in 1890, in 87 Ohio Laws, page 149.

There are two questions to be determined upon the demurrer thus interposed. The first question is whether this contract between the

plaintiff and the defendant is a valid one. The case, as presented to the court, rests entirely upon the pleadings. No evidence is before me, and the allegations of the defendant's answer are to be accepted as true by the plaintiff having demurred thereto. It therefore becomes important to emphasize the facts thus admitted. They are that the plaintiff voluntarily became a member of this relief department, with full knowledge of its rules and regulations. The answer further distinctly avers, and the demurrer admits it, that, by his application in writing to become a member of such relief department, the plaintiff agreed that the acceptance by him of benefits from the relief fund, for injury or death, should operate as a release of all claims for damages against said defendant arising from such injury or death. It will be observed that it is the acceptance of benefits from this relief fund which, by the agreement, releases the railroad company from a claim for damages. If the employee injured does not accept such benefits, but chooses to sue for damages, his right of action is unimpaired, and in no respect waived. This is the case as presented by the pleadings and admitted facts. It is not the question of whether a railroad company, by contract with its employees, can exempt itself from suits for personal injuries caused by its negligence. That, as a general rule, can not be done. This case does not present that question, neither does it present an issue of fact as to whether this contract for insurance is a voluntary one or not. If the pleadings and evidence in a case should show that an employee entered into such a contract, ignorant of its terms, or when under restraint or duress or compulsion, the court would then be authorized, and it would be its duty, to inquire into that fact, and relieve against any wrong of that nature. But, as before stated, no such question is now in any way presented. The pleadings do not even suggest such an issue. The sole question is whether, under the admitted facts already stated, this contract is valid. There are decisions of the supreme courts of the States of Iowa, Maryland, Pennsylvania, and of State courts in Ohio, and of circuit courts of the United States in Ohio and Maryland, holding such contracts legal and binding. Under this plan, employees of railroads are afforded protection by a species of insurance. This sort of protection is not available to them in ordinary insurance companies, except at such high cost as to make it substantially unobtainable. Members sick or injured are entitled to benefits, regardless of what causes their temporary disabilities. They will thus receive benefits in cases where no claim against the railroad company could be made. They could receive benefits, also, in cases where the injury was the result of their own contributory negligence, or of that of fellow-servants in the same department of service, in both of which cases, as a rule, no right of action would arise against their employer. Now, if employees desire to enjoy the benefits of such contracts, they should have the right to make them. They are capable of deciding for themselves whether they want to contract for such protection. It is not within the powers of a legislature to assume that this class of men need paternal legislation, and that, therefore, they will protect them by depriving them of the power to contract as other men may.

At this point in its opinion the court cites and quotes from the following cases: Johnson *v.* Railroad Co., 163 Pa. St. Reports, p. 127, and 29 Atlantic Reporter, p. 854; Donald *v.* Railroad Co., 61 Northwestern Reporter, p. 971; Fuller *v.* Association, 67 Md. Reports, p. 433, and 10 Atlantic Reporter, p. 237; Owens *v.* Railway Co., 35 Federal Reporter,

p. 715, and Martin *v.* Railroad Co., 41 Federal Reporter, p. 125. The opinion then continues as follows:

In view of these authorities and of the reasons given in support of the conclusions reached, I feel justified in holding the contract in this case valid and binding upon the plaintiff.

The next question to be determined is whether the act of 1890 of Ohio [87 Ohio Laws, p. 149] is constitutional. The latter part of the first section of said act reads as follows:

"And no railroad company, insurance company, or association of other persons shall demand, expect, require or enter into any contract, agreement or stipulation with any other person about to enter, or in the employment of any railroad company whereby such person stipulates or agrees to surrender, or waive any right to damages against any railroad company thereafter arising from personal injury or death, or whereby he agrees to surrender or waive, in case he asserts the same, any other right whatsoever, and all such stipulations or agreements shall be void."

This act has been declared unconstitutional in the case of Cox *v.* Railway Company (33 Ohio Law J.), April 22, 1895, in a well-considered opinion by Judge Dilatush, of the Warren County court of common pleas; and the court reaches that conclusion because said act violates section 1, article 1, of the bill of rights, as interfering with the rights of private contract. That provision of the bill of rights is as follows:

"All men are by nature free and independent, and have certain inalienable rights, among which are those of enjoying and defending life and liberty, acquiring, possessing and defending property, and seeking and obtaining happiness and safety."

Article 2, section 26, of the constitution of Ohio, provides:

"All laws of a general nature shall have uniform operation throughout the State."

The act under consideration, while it is general in its nature, applies only to railroad companies and their employees, and is not, therefore, general in its application, and does not operate uniformly on all classes of citizens. Under this statute railroad companies are prohibited from making contracts which other corporations in the State are allowed to make.

Article 1, section 10, of the Constitution of the United States, prohibits any State from passing any law impairing the obligation of contracts.

Article 8, section 16, of the bill of rights of the State of Ohio, prohibits making any law impairing the obligation of contracts.

Article 2 of the Northwestern Territorial Government (1787) provides as follows:

"In the just preservation of rights and property, it is understood and declared that no law ought ever to be made or have force in said Territory that shall in any manner interfere with or affect private contracts or engagements bona fide without fraud, previously made."

This extract from the ordinance of 1787 shows how jealously the right of personal liberty in the making of private contracts was regarded, and how carefully any restriction of said right was restrained.

The act under consideration is certainly one which impairs the rights of a large number of the citizens of Ohio to exercise a privilege which is dear to all persons, namely, that of making contracts concerning their own labor and the fruits thereof, and, so far as it relates to such contracts already made, impairs their validity. The act seems to

assume that a large class of the citizens of the State, namely, those employed by railroad corporations, are incapable of making contracts for their own labor.

As hereinbefore stated, this contract shows on its face, not only that no unfair advantage is taken of these employees, but that the contract, in its broadest and fullest sense, is a beneficent one, intended for their protection and assistance. If in some cases it proves unsatisfactory to the employee insured, that is in itself no evidence that the contract is of an unconscionable nature, or unfair in its provisions. Neither is it a sufficient pretext to assume that all such contracts need the supervision of the legislative body, or that so large a class of citizens should be restricted in their right of personal liberty.

The Ohio statute, in denying to the employees of a railroad corporation the right to make their own contracts concerning their own labor, is depriving them of "liberty," and of the right to exercise the privileges of manhood, "without due process of law." Being directed solely to employees of railroads, it is class legislation of the most vicious character. Laws must be not only uniform in their application throughout the territory over which the legislative jurisdiction extends, but they must apply to all classes of citizens alike. There can not be one law for railroad employees, another law for employees in factories, and another law for employees on a farm or the highways. Class legislation is dangerous. Statutes intended to favor one class often become oppressive, tyrannical, and prescriptive to other classes never intended to be affected thereby; so that the framers of our constitution, learning from experience, wisely provided that laws should be general in their nature and uniform throughout the State.

For the reasons stated, I am of the opinion, first, that the contract set out in the defendant's answer is a valid contract; and, second, that the act of the legislature of Ohio, which declares it to be void and invalid, is unconstitutional. The demurrer to the answer is therefore overruled.

WAGES EXEMPT FROM GARNISHMENT—*Chapman et al. v. Berry. 18 Southern Reporter, page 918.*—J. P. Berry recovered a judgment against Henry Chapman in the circuit court of Hinds County, Miss. A writ of garnishment was issued April 8, 1895, and served on the Alabama and Vicksburg Railroad Company on the same day. The garnishee answered, setting up that at the time the garnishment was served it owed Chapman $81, and during the month of April Chapman's wages amounted to $81 and Chapman drew from its supply car supplies amounting to $56.65; that during the month of May Chapman's wages amounted to $81 and he drew supplies amounting to $74.25; that Chapman's wages for the month of June were $81 and he drew supplies amounting to $71; that, adding the amount of its indebtedness to Chapman at the time the writ was served to the balances due him from month to month, it owed him $121 at the time the answer was filed. Chapman claimed the amount due him as exempt, under section 1963 subsection 10*a* of the Code of 1892, which reads as follows:

And the following property shall be exempt from garnishment or other legal process, to wit:

(a) The wages of every laborer or person working for wages, being

the head of a family, to the amount of one hundred dollars, and every other person to the amount of twenty dollars.

From a judgment of the circuit court in favor of the plaintiff, Berry, for the full amount of all the wages due the defendant, Chapman, at the time the writ of garnishment was served, and what became due before the answer was filed, less $100, defendant and the railroad company appealed to the supreme court of the State. The decision of said court was rendered October 28, 1895, and reversed the decision of the lower court.

The opinion of the court, delivered by Judge Woods, contained the following language:

In the case at bar the judgment creditor sought to tie up and have applied to his judgment the entire monthly wages of his debtor for three or four months under one writ of garnishment, executed in April and returnable in July, less $100, exempt as wages. This view was adopted by the court below, and judgment was entered accordingly. The action was erroneous and rests upon a rigid adherence to the letter of the law of garnishment as contained in chapter 55, Code 1892, and in failing to give vital efficacy to that provision, subdivision *a* of the tenth head of the first section of our law of exempt property, found in chapter 45 of the Code, by which "the wages of every laborer or person working for wages, being the head of a family, to the amount of one hundred dollars," are made exempt from seizure under legal process.

The humane and wise purpose of this exemption law was to secure, not only to the laborer, but the family of which he was head, and for which, by every obligation, legal as well as moral, it was his duty to provide, the necessaries and comforts of life. His wages, by law, are set apart and dedicated to that righteous end. They are made absolutely exempt from seizure under legal process, and we must give our exemption law such construction as will carry its beneficent designs into effect. The chapter on garnishment and the independent chapter on exemption must be so construed as to give harmonious effect to both. The view which we decline to follow would practically render nugatory this salutary provision exempting the wages of laborers.

If, by successive service of writs of garnishment, as was attempted in Chandler *v.* White [71 Miss. Reports, p. 16], or by a single writ returnable to a term of court long subsequent to its execution, as was done in the present case, the debtor [creditor] can aggregate the small monthly wages to an amount in excess of the exemption, and seize this excess, no matter how great his judgment may be, it will be readily seen that both the laborer and his family may come to actual want, and the statute for their protection would be rendered nugatory.

Under the mistaken view which prevailed below, the laborer would be deprived of his small wages, payable at short intervals, until his creditor's debt had been satisfied, if the laborer continued in the service of the same employer, or he would be driven to seek employment, and if successful in finding it, he would again be forced to leave the second employment, after a writ of garnishment had been served, and once more engage in his wandering search for a third engagement, and so on indefinitely, his family meanwhile subjected to all the hardship and want incident to such vicissitudes of evil fortune.

The true view is that on the 1st of each month, or whenever, by the contract of employment, the wages, not exceeding $100, are due and

payable, the laborer has the right to demand and receive them, notwithstanding his employer may have been garnisheed. When the garnishment writ was served in this case on April 1, 1895, and the railway company's answer showed that it owed its servant $81 for wages, the judgment creditor took nothing by its writ, for the wages then due were not garnishable, and the servant had the right to demand payment of his employer, notwithstanding the service of the writ; and, in like manner, the wages for April, May, and June, as they respectively fell due (provided, always, the employer did not have more than $100 of the laborer's wages in his hands), were absolutely exempt from seizure under legal process, no matter whether by one writ or a half dozen successive writs, and the railway company might and should have paid, according to the tenor of its contract, the monthly wages to the laborer. Our statute was designed to secure to laborers and their families the small fruits of their toil, and we feel bound to give it such proper and liberal interpretation as will give life and force to that wise and humane design.

It is contended, however, by counsel for appellee, that, if their chief contention is thought by us to be not sound, yet, under the amended answer of the garnishee, judgment should be rendered for $20.10. The answer does not admit an indebtedness of $120.10, but states certain facts by which the various balances, after deducting from each month's wages of $100 the amounts paid to or accounted for with the laborer monthly, if added to the $81 due when the garnishment was served in April, amount to $121. But we have already seen that this $81 wages for March was exempt from seizure under legal process, was not garnishable, and that the judgment creditor acquired nothing by the service of his writ at that time. Let the garnishee be discharged on its answer. Judgment accordingly.

DECISIONS UNDER COMMON LAW.

BREACH OF CONTRACT OF EMPLOYMENT—DAMAGES—*William Tarr Co. v. Kimbrough. 34 Southwestern Reporter, page 528.*—Action was brought in the court of common pleas of Fayette County, Ky., by J. Mc. Kimbrough against the William Tarr Company to recover on a contract of employment. Judgment was rendered for the plaintiff, and the defendant appealed to the court of appeals of the State. Said court rendered its decision February 26, 1896, and reversed the judgment of the lower court. It appears from the evidence that Kimbrough made a contract with the appellant by which he was employed to do certain work for one year, commencing June 1, 1890, at a salary of $1,200 per annum, payable in monthly installments of $100. He was paid $100 for the month of June; $68.02 on his July salary, and was discharged without cause on the first day of August. The opinion of the court of appeals, delivered by Judge Paynter, contains the following language:

The court erred in giving instructions to the jury. The court assumed that if the plaintiff was employed by the defendant for the month of August at the contract price of $100, and was discharged without cause, then he was entitled to recover the $100 in damages for the violation of

the contract, and so told the jury. If the contract existed as claimed by plaintiff, he was only entitled to recover such damages as he had actually sustained, and which the jury should have fixed on proof. A refusal to allow one to perform a stipulated service is not equivalent to performance, so as to entitle the party to recover the agreed price for full performance.

EMPLOYERS' LIABILITY—ASSUMPTION OF RISKS—*Greene v. Western Union Telegraph Co. 72 Federal Reporter, page 250.*—This was an action brought by John C. Greene against the Western Union Telegraph Company, in the United States circuit court for the district of Minnesota, to recover damages for personal injuries received while in the employ of said company.

The plaintiff was in the employ of the telegraph company as a lineman, and was one of a crew engaged in repairing its telegraph lines, under the immediate charge of a foreman, who had authority to hire and discharge men, and direct them where and how to work. He was ordered by the foreman to climb a certain "gin pole," and while climbing it, pursuant to said order, the pole fell, apparently because not sufficiently guyed, and he was injured. The plaintiff claimed that the foreman was a vice-principal, for whose negligence in the erection of said pole the defendant was liable.

Upon the evidence given the defendant moved the court to direct a verdict in its favor, and the court, March 11, 1892, granted the motion. The opinion was delivered by District Judge Nelson, and was as follows:

I think this was a risk that the plaintiff assumed when he was hired. It was a part of his duty. He was not only to help erect and climb poles and string wires, but to help to put up those gin poles. While the business may have been a hazardous one, he assumed the ordinary risks incident thereto, and among them that of a pole not being properly guyed, owing to negligence on the part of his fellow-workmen. Conceding that the foreman was a representative of the company, I do not think it has anything to do with the case. Plaintiff was not taken from any particular duty and put into one that he was not hired to do, which was extra hazardous, and unnecessarily exposed him to a danger which he did not contemplate by virtue of his employment; but he was hired to do just what he was ordered to do, and in so doing the accident happened. I think this man was injured by a risk which he assumed by virtue of his employment, and I instruct you that the defendant is entitled to your verdict.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—*Union Pacific Ry. Co. v. O'Brien. 16 Supreme Court Reporter, page 618.*—This was an action brought by Nora O'Brien against the Union Pacific Railway Company in the circuit court for the district of Colorado to recover

RECENT GOVERNMENT CONTRACTS.

[The Secretaries of the Treasury, War, and Navy Departments have consented to furnish statements of all contracts for constructions and repairs entered into by them. These, as received, will appear from time to time in the Bulletin.]

The following contracts have been made by the office of the Supervising Architect of the Treasury:

DETROIT, MICH.—July 17, 1896. Contract with Forster & Smith, Minneapolis, Minn., for joinery work, marble work, iron stairs, plastering, etc., in courthouse, post office, etc., $216,740. Work to be completed within seventeen months.

PUEBLO, COLO.—July 18, 1896. Contract with L. L. Leach & Son, Chicago, Ill., for erection and completion of post office, except heating apparatus, plumbing, elevator car and machinery, electric wire and conduits, $187,774. Work to be completed within eighteen months.

SIOUX CITY, IOWA.—August 7, 1896. Contract with Optenberg & Sonneman, Sheboygan, Wis., for low-pressure, steam-heating, and mechanical ventilating apparatus, power boilers, etc., for courthouse, post office, and customhouse, $10,699. Work to be completed within ninety working days.

WASHINGTON, D. C.—August 10, 1896. Contract with George C. Howard, Philadelphia, Pa., for extending and remodeling one freight elevator at the Bureau of Engraving and Printing, $1,500. Work to be completed within three months.

SOUTH BEND, IND.—August 17, 1896. Contract with Henderlong Bros. & O'Neill, Valparaiso, Ind., for erection and completion of post office, except heating apparatus, $35,036. Work to be completed within eleven months.

MADISON, IND.—August 24, 1896. Contract with Bailey, Koerner & Co., Louisville, Ky., for erection and completion of post office, except heating apparatus, using Portage red sandstone and Indiana limestone, $22,460. Work to be completed within six months.

NEWARK, N. J.—August 29, 1896. Contract with Morse, Williams & Co., Philadelphia, Pa., for hydraulic elevator in the customhouse and post office, $3,995. Work to be completed within seventy days from approval of bond.

MERIDIAN, MISS.—September 1, 1896. Contract with F. B. Stowell & Co., Chicago, Ill., for erection and completion of post office, except heating apparatus, $51,000. Work to be completed within ten months.

BEAVER FALLS, PA.—September 2, 1896. Contract with William Miller & Sons, Pittsburg, Pa., for erection and completion of post office, except heating apparatus, $30,746.

RACINE, WIS.—September 9, 1896. Contract with Adam H. Harcus, Racine, Wis., for erection and completion of customhouse and post office, except heating apparatus, $44,347. Work to be completed within ten months.

TAUNTON, MASS.—September 10, 1896. Contract with A. H. Kleinecke, Chicago, Ill., for interior finish, plumbing, and gas piping for post office, $16,060. Work to be completed within six months.

KANSAS CITY, MO.—September 25, 1896. Contract with J. J. Hanighen, Omaha, Nebr., for horizontal drain pipes, clean outs, and clean out manholes for post office and courthouse, $3,733. Work to be completed within fifty working days.

YOUNGSTOWN, OHIO.—September 25, 1896. Contract with Bailey, Koerner & Co., Louisville, Ky., for erection and completion of post office, except heating apparatus, $31,849. Work to be completed within nine months.

DETROIT, MICH.—September 26, 1896. Contract with Henry Carew & Co. for isolated ward building for marine hospital, $1,090. Work to be completed within sixty days.

BUFFALO, N. Y.—September 26, 1896. Contract with John Peirce, New York City, for superstructure, etc., of Jonesboro granite for post office, $719,900. Work to be completed within twenty months.

KANSAS CITY, MO.—September 30, 1896. Contract with the Huagh-Noelke Iron Works, Indianapolis, Ind., for steel and iron work of roof, etc., of post office and courthouse, $7,005. Work to be completed within sixty days.

6269—No. 6——9

BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 7—NOVEMBER, 1896.

ISSUED EVERY OTHER MONTH.

EDITED BY

CARROLL D. WRIGHT,
COMMISSIONER.

OREN W. WEAVER,
CHIEF CLERK.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1896.

CONTENTS.

BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 7. WASHINGTON. NOVEMBER, 1896.

INDUSTRIAL COMMUNITIES. (a)

BY W. F. WILLOUGHBY.

CHAPTER VI.

OTHER INDUSTRIAL COMMUNITIES.

The places that have been described in detail by no means constitute all the industrial centers in Europe coming under the designation of industrial communities. There is no hard and fast distinction that marks off a place as an industrial community. Under varying conditions are formed the practically self-contained industrial community, as Guise, the community dominated by and almost wholly given up to the interests of a single industrial establishment, as Essen or Anzin, and the ordinary manufacturing town, all of which may be styled industrial communities. In the middle class may be numbered a good many other places only slightly less important than those of which a detailed account has been given. While it is impracticable, if indeed it were desirable, to give to each of these the same full treatment that has been accorded to the others, it will nevertheless be of value to make mention of their existence and to give some account of their conditions or institutions most worthy of investigation. The following is believed to be a practically complete list of important places with sufficient of the character of industrial communities to cause the grouping around them of systems of special institutions, thus giving to them a special life and character of their own:

In France there are, first, the other more important mining communities, notably Douchy, Courrières, Liévin, and Bessèges, and, second, Le Creuzot, the seat of the important iron and steel works of MM. Schneider & Co., the "Krupp" of France; Noisiel, a unique community of its kind, the seat of the chocolate works of M. Menier, and Thaon, a village

a See footnote to the beginning of this series of articles in Bulletin No. 3.

almost wholly devoted to the enterprise of the Thaon Dyeing and Print Cloth Works. In Belgium those most worthy of mention are the mining community of Mariemont and Bascoup, the Vieille-Montagne Zinc Mining and Smelting Company, and Willebroek, the seat of the paper mills of De Naeyer & Co. In Holland there is the village of Agneta Park, the seat of the Netherland Yeast and Alcohol Factory, near Delft. In Switzerland the most prominent example is that of the Suchard Chocolate Works at Neuchâtel; in England, the not very fortunate enterprise of Saltaire, and in Italy, the works of Senator Rossi, at Schio. In Germany there is no industrial community at all approaching Essen in importance. Mention might be made of Bochum, where are located the iron works of the Bochumer Verein, and the works of Gebrüder Stumm at Neunkirchen.

A more or less full account of the more important of these places is given in this chapter.

THE MARIEMONT AND BASCOUP COAL MINING COMPANY, BELGIUM.

A number of considerations mark the Mariemont and Bascoup Coal Mining Company as the most worthy of study, from the standpoint of the present report, of all the industrial concerns in Belgium. The company is one of the most important in the country. The seat of its operations, the two adjoining villages of Mariemont and Bascoup, is so largely given up to this one concern as to constitute it a distinct industrial community, and, more than all, its workingmen's institutions are among the most remarkable in Europe.

The present company was formed through the consolidation of the two separate companies of Mariemont and Bascoup, whose properties were contiguous. The mining of coal in this region dates back several centuries, but the first regular operations may be said to date from 1794, while the first concession to the companies was made in 1802. The two companies have constantly grown in importance through the acquisition of additional property. Legally they are still distinct companies, though they are under the same direction and for all practical purposes are one undertaking.

In 1894 the company employed in round numbers 6,500 men, and its annual production was between 1,000,000 and 1,200,000 tons.

In the organization of labor by the company the principle of piecework has probably been carried further than in any other mine in Belgium, if not on the Continent. Wherever possible the work is let out by contract to the workingmen, and in addition to the wages thus provided for certain premiums or bonuses are added for good work or participation in any savings that may be made in the use of materials and supplies. This is done by making an estimate of the cost of these supplies and tools under the system of day labor in vogue elsewhere,

and any saving made on this sum is shared equally by the men and by the company. M. Weiler, the engineer of the company, is very enthusiastic over the success of this system. He says that marked economy, which has profited the men and the company alike, is manifest in the use of both tools and materials. Every effort is made to interest the workingmen in their work and in the general prosperity of the company. One of the unique methods employed is to make a large graphic representation of the organization of the company into departments, branches, etc., a copy of which is given to each workingman who deserves it, so that he can get an intelligent idea of the whole work of the company in which he is employed and the exact position that he occupies in this system. This is but a sample of the efforts made to give to the men an intelligent conception of what they are doing. They are encouraged to find an education in their work.

In 1888 the company prepared a statement of the average wages paid since 1869, as well as for the year 1888, in greater detail. These statistics of wages are the only ones available and are given in the tables that follow:

AVERAGE DAILY WAGES OF EMPLOYEES OF THE MARIEMONT AND BASCOUP COAL MINING COMPANY, 1869 TO 1888.

Year.	Average daily wages.	Year.	Average daily wages.	Year.	Average daily wages.	Year.	Average daily wages.
1869	$0.56	1874	$0.85	1879	$0.61½	1884	$0.67½
1870	.60	1875	.81½	1880	.70	1885	.62
1871	.62	1876	.79½	1881	.68½	1886	.62½
1872	.69½	1877	.66½	1882	.69	1887	.62½
1873	.89	1878	.62	1883	.72	1888	.63

AVERAGE DAILY WAGES OF EMPLOYEES OF THE MARIEMONT AND BASCOUP COAL MINING COMPANY, BY CLASSES, 1888.

MARIEMONT.

Class of employees.	Employees above ground.		Employees below ground.		Total employees.	
	Number.	Average daily wages.	Number.	Average daily wages.	Number.	Average daily wages.
Men	700	$0.67	1,701	$0.73½	2,401	$0.71½
Women	127	.23½	.....	.....	127	.23½
Boys under 16 years of age	57	.22	260	.28	317	.27
Girls under 16 years of age	80	.19½	.....	.....	80	.19½
Total	964	.54½	1,961	.67½	2,925	.63

BASCOUP.

Men	569	$0.63	1,864	$0.76	2,433	$0.73
Women	132	.27½	.....	.....	132	.27½
Boys under 16 years of age	38	.19½	319	.34	357	.32½
Girls under 16 years of age	92	.19	.....	.....	92	.19
Total	831	.50½	2,183	.70	3,014	.64½

WORKINGMEN'S INSTITUTIONS.

The workingmen's institutions of Mariemont and Bascoup include a complete scheme of institutions similar to those already described as existing at Anzin and Blanzy, such as the housing of employees, medical service, mutual-aid societies, cooperative distributive stores, schools, etc. To describe these in detail would result in unnecessary repetition. There are two institutions, however, which are unlike any yet studied and which form the central feature of the Mariemont and Bascoup Company's social work. These two, both of which are of great importance and interest, will therefore be described in detail, while a general description of the other work of the company will be sufficient. The first of these is the scheme of chambers of explanations (*chambres d'explications*) and councils of conciliation and arbitration (*conseils de conciliation et d'arbitrage*), organized for the prevention and adjustment of difficulties between the company and its employees, an effort which is without doubt the most important in Europe for the settlement of labor disputes without invoking the aid of the Government. The second is the system of workingmen's insurance against accidents, sickness, and old age. The latter is important, not because it is unique, but because it affords an example of the general system for the insurance of coal miners in Belgium.

Before commencing their consideration a few words should be said regarding the spirit in which these institutions have been created and are now administered, for it should never be forgotten that this spirit usually determines the real benefits that result. The following extract is quoted from an address delivered by M. Julien Weiler before the Société Belge d'Économie Sociale, entitled the Spirit of the Workingmen's Institutions of Mariemont. M. Weiler is the engineer in chief in charge of the practical operations of mining at Mariemont, and is the official to whom has been given the especial charge of all the company's work for its employees, and his remarks are therefore in the nature of an authoritative statement of the motives actuating the company in its social work. He says:

The question can be raised why we do not allow the pension and aid funds to be entirely managed by the workingmen. The reply to this is that we are desirous of diminishing our intervention each time that the workingmen manifest the desire to augment theirs. But the workingmen have not yet arrived at the stage where they can be disfranchised from all guidance. The proof of this is that as soon as they are released from control by the company they have recourse to some other guidance.

We think, however, and this is a point on which I wish to lay great stress, for it indicates the whole spirit of our institution, that the employer ought to continue his intervention provided that his intervention is limited to that which the workingmen themselves can not do. In other words, the employer, as regards the matter of tutelage, ought to prepare the way for his own abdication.

You do not find among us, therefore, patriarchal institutions. * * * On the contrary all our efforts tend to emancipate our workingmen intellectually and morally. Self-help is the sentiment we desire to inculcate, and I hope to show you that we have in great measure succeeded in our efforts.

COUNCILS OF CONCILIATION AND ARBITRATION.

Without doubt the most worthy of study of all the institutions of the Mariemont and Bascoup Coal Mining Company is the system adopted by it for the prevention and settlement of labor disputes. Its efforts in this direction are the most remarkable made by any private company in Europe. "The entire history of arbitration in Belgium," says the French Labor Bureau in its exhaustive report on Arbitration and Conciliation, "is contained in that of the councils of conciliation of Mariemont and Bascoup and in that of the councils of industry and labor."

The first application of the idea of conciliation in labor disputes by the Mariemont and Bascoup Company, and indeed the first application of that idea in Belgium, was made in the year 1877. As the result of a serious strike of his employees in 1875–76, the manager of the company requested his engineer, M. Julien Weiler, to make a thorough study of the question of conciliation and arbitration with the view of the introduction of some such system in the organization of labor in his company.

The first action, as the result of this investigation, took the form of the creation of chambers of explanation (*chambres d'explications*) in the workshops of the company. These were meetings of clerks or foremen and workingmen, with the object of furnishing a medium of communication between the employees and their employer, in order that misunderstandings might be avoided. In this way an opportunity was afforded for the settlement of demands that in themselves would often be readily granted were they only brought to the attention of the other side, but which if not explained might cause great trouble and friction. Each of the 9 trades in the workshops was represented by a committee of 6 workingmen and 6 clerks or foremen, with a central committee composed of a delegate from each group for the discussion of general questions.

At first, owing to lack of previous organization among the workingmen, and to the fact that the establishment of the chambers coincided with a serious reduction in wages, the results were not satisfactory. However, after the chambers had been in existence several years, and after several modifications had been made in their organization, they began to render valuable services. Fines were entirely abolished, while the officials were unanimously of the opinion that their regulations had never been more respected; moreover, the regulations themselves were revised by the committees. The system of task work which had previously been considered impracticable was successfully organized, and the cost of production diminished by at least 20 per cent, while wages were advanced to an equal extent.

In 1880 the system was extended to the employees engaged in the transportation of the coal, and in 1889 further extended so as to include all the different branches of the company's work and all its employees.

The creation of these chambers of explanation necessarily required the creation of an institution which, while leaving to these chambers the oversight of daily details, should itself have a higher character and take cognizance of more serious disputes. On January 1, 1888, therefore, there was created both at Mariemont and at Bascoup a council of conciliation and arbitration (*conseil de conciliation et d'arbitrage*). These councils constitute the supplement to the chambers of explanations. The constitions of the two councils are practically identical. Each is organized in such a way as to secure to both the workingmen and the company an absolute equality. The council is composed of 6 representatives of the company and 6 representatives of the workingmen. The company chooses its representatives from among its higher employees, including the general manager. The 6 workingmen representatives are elected by a species of electoral college. Thirty-six delegates are elected by the workingmen, 6 from each branch of the company's service. Only those workingmen can vote who are 21 years of age and have been in the service of the company at least six months. This body, all the members of which have the right to attend the meetings of the council, elects 6 representatives, who alone have the right of voting in the deliberations. These representatives must be over 30 years of age and they must have been in the service of the company five or more years.

The council meets monthly. A president and vice-president are appointed annually, one of whom must be chosen from among the workingmen. The president convokes the meetings, at which two-thirds of the representatives of each side must be present in order to constitute a quorum.

All disputes of general interest must be discussed before the whole council. Prior to the examination of a disputed point, and during its discussion, work must be continued under the conditions which existed when the difficulty arose. Both parties agree to accept the decisions of the council for at least three months and the same question can not be raised again within that period. All the expenses of the council are defrayed by the company. Each representative and delegate is allowed 2 francs (39 cents) for each meeting that he attends, and is indemnified for all time lost.

The proof of the value of any institution is in the practical results of its operations. A survey of the operations of these councils during the first six years of their existence shows how many important questions have been brought to their attention and decided by them.

During the first year, 1888, there were 18 meetings of the council, at which 39 questions were considered. Nineteen of these were general questions, that is, such as concerned more than one group of working-

men; 10 were questions relating to one group or branch of workingmen, and 10 related to individuals.

Among the more important general questions was a demand made in April for increased pay based on newspaper reports of an alleged revival of trade. The administration made a formal agreement to increase wages as soon as better times should set in and the other party was satisfied. On November 19 a second demand was made, resulting in a recommendation of a 5 per cent increase, which the administration granted.

Another question related to a demand for shorter hours and certain regulations regarding time of ascending and descending the mines. This question evoked heated discussions during three meetings of the council, when a committee of 2 from each side was appointed to thoroughly examine the question. The committee's report was in the form of a compromise and was adopted, to the satisfaction of both parties.

As frequent disputes had arisen regarding the time of arrival of employees, the council succeeded in having clocks placed at convenient points about the mines.

Several questions relating to health, security, and convenience were satisfactorily settled.

Among the minor questions were such as related to complaints on account of fines, promotions, discharges, errors in wage payments, etc. All these were disposed of after careful examination either by the council alone or with the assistance of special committees.

In 1889 there were 12 meetings of the council, at which 30 questions were considered. Of these 17 were general questions, 6 related to one group of workingmen, and 7 to individuals. On September 23 the council considered a demand for a further increase of wages in proportion to the higher price of coal. The company offered its books in evidence, and the meeting adjourned pending their investigation. At the next meeting, October 22, the company agreed to increase the wages 5 per cent, to take effect November 1. Another increase of 5 per cent was made December 1, and still another of 10 per cent on January 1, 1890. Other general questions considered related to hours of work, the fine system, indemnities to workingmen, etc.

In 1890 there were 16 meetings of the council, at which 57 questions were considered. Of these 39 were general questions, 15 related to one group of workingmen, and 3 related to individuals. The general questions related to the health service, wages, the sale of coal to workingmen, hours of labor, aid and provident funds, fines, holidays, handling of explosives, etc.

In 1891 there were 13 meetings, at which 47 questions were considered. Of these 33 were general, 12 special, and 2 individual questions. The general questions related to the health service, the provident fund, wages, fines, fuel, tools, etc.

In 1892 there were 12 meetings of the council, at which 27 general

questions, 7 special, and 4 individual questions, or a total of 38 were considered.

In 1893 there were 13 meetings of the council, at which 32 general, 8 special, and 2 individual questions, or a total of 42, were considered. The nature of the questions was about the same as that of other years.

WORKINGMEN'S SICK FUND AND OLD-AGE PENSION FUND.

The investigation of the insurance funds of the Mariemont and Bascoup Company offers the opportunity for a study of the workings, in a particular case, of the general system of the insurance of miners in Belgium, one of the most interesting insurance systems on the Continent.

In Belgium the insurance of coal miners by their employers is obligatory. For this purpose there was created during the years 1839–1844 in each of the 6 great mining districts into which Belgium is divided a central insurance fund, in which all mining companies were required to participate. They have all been in active operation since then, and have therefore had an existence of over 50 years.

The scheme comprehended, in addition to the central funds for the more regular insurance of workingmen, the creation of special insurance funds by each mining company for purposes of relief in minor cases of sickness. Each mining company, therefore, participates in two funds, a central fund and a special individual one.

The central fund is maintained by (1) the payment of three-fourths of 1 per cent of their wages by the workingmen, (2) the payment of an equal amount by the company, (3) a subsidy from the State, (4) a smaller subsidy from the province, and (5) gifts and donations.

This fund is invested in approved securities. The schedule of monthly indemnities is as follows:

1. To an employee injured so as to be permanently and totally unable to work—	
(*a*) Workingman, married, 19 years of age or over	$5.79
(*b*) Workingman, unmarried, 19 years of age or over	4.44
(*c*) Workingman, unmarried, less than 19 years of age	2.97
(*d*) Workingwoman, 16 years of age or over	2.66
(*e*) Workingwoman, less than 16 years of age	1.78
2. To an employee injured so as to be able to earn not more than 50 per cent of his usual wages—	
(*a*) Workingman, married, 19 years of age or over	4.25
(*b*) Workingman, unmarried, 19 years of age or over	3.28
(*c*) Workingman, unmarried, less than 19 years of age	2.20
(*d*) Workingwoman, 16 years of age or over	1.97
(*e*) Workingwoman, less than 16 years of age	1.31
3. To an employee injured so as to be able to earn from 51 to 70 per cent of his usual wages—	
(*a*) Workingman, married, 19 years of age or over	2.90
(*b*) Workingman, unmarried, 19 years of age or over	1.93
(*c*) Workingman, unmarried, less than 19 years of age	1.29
(*d*) Workingwoman, 16 years of age or over	1.16
(*e*) Workingwoman, less than 16 years of age	.77

4. To an employee injured so as to be able to earn from 71 to 85 per cent of his usual wages—
   (a) Workingman, married, 19 years of age or over $1.54
   (b) Workingman, unmarried, 19 years of age or over 1.16
   (c) Workingman, unmarried, less than 19 years of age ..... .77
   (d) Workingwoman, 16 years of age or over ..... .69
   (e) Workingwoman, less than 16 years of age ..... .46
5. To an employee injured so as to be able to earn over 85 per cent of his ual wages, no allowance.
6. To a widow of a workingman killed by an accident—
   (a) Personal allowance 2.90
   (b) For each male child under 12 or female child under 15 years of age ..... .39
7. To a widow of a workingman pensioned on account of injuries not fatal—
   (a) Personal allowance, 50 per cent of husband's pension.
   (b) For each male child under 12 or female child under 15 years of age ..... .39
8. To a father and mother or a grandfather and grandmother of a workingman killed by an accident when unable to support themselves—maximum for division among all 1.74
9. To an orphan of a workingman killed by an accident—
   (a) Male, until 12 years of age 1.16
   (b) Female, until 15 years of age 1.16
10. To a workingman unable to work and at least 55 years of age, and having been employed at least 30 years, or of any age and having been employed 38 years 2.90
11. To a workingman, whether able to work or not, 60 years of age, or 65 if employed more than half the time above ground, and having been employed 35 years 3.86
12. To the widow of a workingman pensioned on account of old age, if she had been his wife 30 years 1 54

The operations of this fund may be seen from the following figures, taken from the latest annual report obtainable, showing receipts and expenditures during that fiscal year and during the entire period of its existence:

RECEIPTS AND EXPENDITURES OF THE MINERS' INSURANCE FUND OF THE CENTRAL DISTRICT OF BELGIUM, 1893, AND AGGREGATE, 1841-1893.

Items.	1893.	1841-1893.
RECEIPTS.		
Contributions of employees, retained from wages	$36,638.08	$713,397.48
Contributions of mine owners	36,638.08	713,397.48
Subsidy of central government	1,361.28	46,650.53
Subsidy of province	282.55	9,299.19
Interest on funds invested	8,252.93	217,547.97
Total	83,172.92	1,700,292.65
EXPENDITURES.		
Running expenses other than cash benefits:		
Salary of secretary	386.00	(a)
Salaries of commission of physicians	115.80	(a)
Attendance fees of workingmen's delegates	247.04	(a)
Rent of room	38.60	(a)
Printing annual report	38.60	(a)
Stamps and miscellaneous	27.03	(a)
Total running expenses	853.07	17,745.29
Pensions and aid	74,444.00	1,386,287.16
Indemnities to widows remarrying	593.59	18,903.14
Total	75,890.66	1,422,935.59
Excess of receipts over expenditures	7,282.26	277,357.06

a Not reported.

During the year 1893 the number of pensioners increased from 2,241 to 2,366 and the value of the average yearly pension from 166.69 francs ($32.17) to 167.12 francs ($32.25). Among this number of 2,366 pensioners there were 1,162 pensioned for old age (old workingmen or widows of old workingmen). During the life of the fund 6,219 pensions have been recorded. Of these 3,853 have become extinguished, leaving on December 31, 1893, as has been stated, 2,366 still in existence. There are nine corporations participating in the fund, of which that of Mariemont and Bascoup is easily the most important. Of the total amount paid for all the companies in 1893, it contributed 153,980.66 francs ($29,718.27), or 40.56 per cent, and among the total number of pensioners it was credited with 923, or 36.31 per cent.

As has been said, each mining company is required also to maintain a special fund for relief purposes rather than insurance operations, properly speaking. In compliance with this obligation, two special relief funds have been organized by the Mariemont and Bascoup Company, one in Mariemont and the other in Bascoup. Their constitutions are practically identical.

The special relief funds are constituted by (1) the payment by the workingmen of a sum equal to three-eighths of 1 per cent of their wages, (2) the payment by the company of an equal amount, and (3) the payment by the company of all sums collected by it through fines levied upon the workingmen.

From this fund benefits are paid to workingmen as follows: In case of accidents an indemnity equal to 30 per cent of their wages during three months if they are incapacitated for work that length of time. After that patients are cared for by the general insurance fund. In case of sickness an indemnity is paid during the first six months equal to 22 per cent of the patient's wages, during the second six months one equal to 15 per cent, and during the second year one equal to 7½ per cent of his average wages. In case the sickness continues longer than two years special provision is made in each case.

An important point to be noted in connection with this as well as the general fund is the large extent to which the workingmen themselves participate in its management.

The following statement of the receipts and expenditures of the funds of both Mariemont and Bascoup for the year 1893 will show the extent of their operations:

Cash on hand January 1, 1893	$633.67
Receipts	10,392.85
Total	11,026.52
Expenditures	11,371.71
Deficit borne by the company December 31, 1893	345.19

In addition to the work done by these two funds a great deal is done by the company along the same lines through its old-age pension fund

for its office employees, engineers, etc., and through its pension fund for boss miners, foremen, chief machinists, and laborers of a similar grade, and by the workingmen themselves through their mutual aid societies.

In 1868 the company organized a pension fund for its higher employees which provides for a maximum pension equal to 60 per cent of the recipient's usual wages after he is 60 years of age and has been in the employ of the company 35 years, or has become incapacitated for work, whatever his age or length of service. In case the incapacity is due to an accident the pension can equal 70 per cent of his wages. Provisions are also made for pensioning the widows of members. The funds are raised through the retention of a certain percentage of the wages of members and the payment of a varying amount by the company.

The company also, entirely at its own expense, grants pensions to its boss miners, foremen, chief machinists, etc., (1) in the case of boss miners when they are 55 years of age, and of the others when they are 60 years of age; (2) when incapacitated for work, whatever their age, as the result of old age or sickness; (3) when incapacitated for work as the result of an accident. In the first and second cases the pension is equal to 2 per cent of the recipient's wages for each of the first 15 years that he has been in the service of the company and 1 per cent for each succeeding year. In the third case the pension is equal to 5 per cent of the wages for each of the first 5 years and three-fourths of 1 per cent for each succeeding year of his service. In no case, however, can the pension exceed 40 per cent of the wages nor be less than 35 francs ($6.76) per month. Provision is also made for the pensioning of the widows of these workingmen. If these pensioners are in receipt of pensions from the two regularly constituted funds, only the excess of the pension which they are entitled to under the present regulations over those received from the regular funds is paid to them.

It will be unnecessary to describe the character and operations of the mutual-aid societies organized by the workingmen, as they offer little variation from the aid societies described in the cases of Anzin and Blanzy. It is sufficient to say that they are entirely independent of the management of the company, their funds are obtained through membership dues and interest on capital invested, and their objects are the granting of aid in cases of sickness, the defrayal of funeral expenses of deceased members, etc. Membership in these societies is almost universal on the part of the workingmen.

OTHER SOCIAL INSTITUTIONS.

The remaining institutions need only a brief mention. They include savings banks, technical and primary schools, cooperative societies, workingmen's houses, etc. The company has itself erected 562 houses for its employees. They are arranged in groups of two, four, and six. Each house possesses a small garden. Their average cost was about

3,500 francs ($675.50) and the average rent is 7.50 francs ($1.45) per month, which gives a return on the money invested of 2½ per cent. The company has also advanced money to its employees with which to build houses of their own. About 40 houses are annually built by this means, and it is estimated that one-quarter of the workingmen have become house owners. Several cooperative societies for the sale of commodities, organized by the employees themselves, have been in operation since 1869. Though moderately successful, they have far from driven private dealers from the field. The great benefit derived from them is that they have compelled the other dealers to lower their prices to their own standard of minimum prices.

VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, BELGIUM.

There are few more interesting aggregations of workingmen's institutions than that organized under the auspices of the Zinc Mining and Smelting Company of Vieille-Montagne, of Belgium, with its headquarters at Chénée. At the same time there is not the same opportunity for studying the conditions of a particular locality as in the case of Anzin, Essen, Guise, or Blanzy, for the company has constantly extended its operations, acquiring other establishments in other countries as well as in Belgium, until to-day it almost controls the zinc trade of Europe. As in each place, however, it has pursued the policy of organizing its workingmen into special communities with their special institutions, their study enters into the scope of the report.

The history of the zinc industry is practically that of the Vieille-Montagne Company. The industry may be said to have been created by it through the discovery of an easy process for the reduction of zinc ore by Abbé Dony, the real founder of the Vieille-Montagne Company. The existence of ore rich in zinc at Vieille-Montagne was known as early as the middle of the fifteenth century, but the efforts that culminated in the present company only date from 1806, when Abbé Dony was granted his concession. Dony, through his discovery of the means of extracting the pure zinc from the ore, laid the foundation for the industry. In 1837 the present Vieille-Montagne Company was created in order to concentrate various interests that had become scattered among different heirs. Even at this time the industry was in a feeble condition. The company, however, early inaugurated the policy of bringing in and absorbing other mines and establishments for the extraction and production of zinc. Thus at the present time, though the seat of the company and the most important center of production is at Vieille-Montagne, it has in its possession twenty-one large establishments situated at different points in Belgium and other countries.

The company has now reached a position where it is much the largest zinc mining and manufacturing company in the world. In 1890 the total production of zinc in Europe was 287,494 tons. Of this amount

the Vieille-Montagne Company produced 53,710 tons, or between one-fifth and one-sixth of the total amount, or 30,000 tons more than that mined by the next largest company.

WORKINGMEN'S INSTITUTIONS.

The fact that all of the company's establishments are organized in one central system and that the same policy regarding social institutions has been followed throughout makes it possible to study the social work of the company as a whole in much the same manner as if there were one instead of a number of industrial centers.

In 1889 the company, in a pamphlet published in connection with its exhibit at the Paris Exposition, made the following concise statement of the principles by which it has been guided in the treatment of its employees. A translation of it is given:

1. The best mode of remunerating workingmen is that which interests them not only in the general profits of the enterprise, but also in the industrial results over which they themselves can exercise a direct and personal influence.

2. In order that wages may be sufficient, they ought to be of an amount that would permit workingmen not only to live, but also to make savings in order to provide for future as well as present wants.

3. But even if the workingmen receive such wages, they will not save nor acquire possession of homes unless the employer facilitates their so doing either through the creation of savings banks or by advances made with liberality and yet with caution.

4. Even with this aid but a minority of workingmen will be in a position to profit by these institutions. For the protection of the others there should be organized funds aiding them in cases of sickness, invalidity, and old age.

5. Two considerations which too often are neglected are absolutely necessary in order to insure the normal operation of these funds and prevent their disaster.

(*a*) The first consists in keeping an exact account of present and especially of prospective expenditures and in providing resources and the necessary reserves.

(*b*) The second consists in avoiding the systems of the management of the funds by the employer alone or by the employees alone, in favor of a mixed system.

In that way only can workingmen be interested in the management and the necessary control by the employer be at the same time exercised.

To carry out these principles, the company has organized a system for the determination of wages and for limited profit sharing, institutions to aid workingmen to become house owners, aid and insurance funds, savings banks, and other institutions intended to better the intellectual and moral condition of its employees.

THE SYSTEM OF THE DETERMINATION OF WAGES.

All those who take part in any way in the work of the company, from the manager down to the ordinary workingman, are interested within the limits of their respective spheres of action in the financial returns of the work carried on. This result has been obtained through the application of a system of extra wages, premiums, or additions to regular wages. The remuneration of employees is made to consist of two parts, the one fixed, or wages, properly speaking, the other variable, called a premium. The first is intended to be, in a way, pay for the time consecrated by the employee to the service of the company; the second is a reward for personal efforts—a return for the special activity and intelligence displayed by the workingman.

The basis on which the premium is determined varies according to the nature of the service. The premiums are proportional either to the quantity of ore mined or to the economy in the use of material, especially that of fuel, or to the amount of the final product produced within a given time. The amount of the premium is greater or less, according to the relative importance of the work; but whatever the basis—and this is a matter of prime importance—the workingman always knows exactly the rate, and each day, according to the results obtained, can himself calculate his share. The premium account is made up at the same time as that of his wages, but only half of the amount earned is paid over. The other half is carried to his account, and is not liquidated until the end of the year. In this way the workingman has quite an accumulation of savings at the end of each year.

The following table shows the total number of employees and the average daily wages per employee for each year since the organization of the company:

AVERAGE DAILY WAGES OF EMPLOYEES OF THE VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, 1837 TO 1888.

Year.	Employees.	Average daily wages.	Year.	Employees.	Average daily wages.	Year.	Employees.	Average daily wages.
1837	932	$0.26	1855	6,763	$0.37	1873	6,994	$0.60
1838	945	.26	1856	5,417	.43	1874	6,751	.62½
1839	960	.26½	1857	5,492	.43	1875	6,477	.62½
1840	982	.26	1858	6,068	.46	1876	6,472	.62½
1841	1,080	.26½	1859	4,947	.43½	1877	7,121	.60½
1842	1,072	.26½	1860	5,034	.43	1878	7,193	.60½
1843	1,124	.27	1861	5,264	.43	1879	6,890	.60
1844	1,148	.27	1862	5,332	.44	1880	6,363	.59½
1845	1,187	.27½	1863	5,559	.45½	1881	6,859	.60½
1846	1,211	.28½	1864	5,842	.45½	1882	6,960	.61½
1847	1,432	.28	1865	6,223	.46½	1883	6,902	.61½
1848	1,247	.31½	1866	6,495	.48	1884	6,547	.60
1849	1,511	.35½	1867	6,696	.49	1885	6,101	.61
1850	1,952	.35	1868	6,802	.49	1886	5,900	.61
1851	2,083	.40½	1869	7,115	.50	1887	6,218	.61
1852	2,242	.40½	1870	6,902	.51	1888	6,512	.61½
1853	4,431	.37	1871	7,118	.52			
1854	5,950	.36½	1872	7,074	.55½			

These figures are of course of value only from the standpoint of a comparison of wages from year to year. But for this purpose they are of exceptional interest, covering, as they do, a period of over fifty years in the most important establishment in the world of the industry to which it relates. Average wages, it will be seen, have gradually risen from 1.35 francs ($0.26) in 1837 to 3.24 francs ($0.62½) in 1875, since when the average has been almost stationary. According to the report of the company for 1893 the average for that year was exactly that paid in 1875. Of this amount the premium represents a proportion ranging from 10 to 25 per cent.

In commenting on these figures for the year 1888 the company said:

It should be remarked that the average wages, 3.18 francs ($0.61), relate to workingmen very differently situated. We can therefore say that, although the average wages paid amount to 3.18 francs ($0.61) per day, or 1,019 francs ($196.67) per year, in reality 50 per cent of the employees earn yearly wages of 1,200 francs ($231.60) or more, and the remainder earning less is composed in large part of youths whose wages are added to the family income.

As in the case of Anzin, it would be a matter of interest to compare the variation in wages with the variation in the prices of commodities that enter into the cost of living for the workingmen. In the present case material is at hand to do this in but the single case of wheat. The table that follows shows this relative variation by expressing the quantity of wheat that the average salary will buy.

QUANTITY OF WHEAT PURCHASABLE BY AVERAGE WAGES OF EMPLOYEES OF THE VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, 1837 TO 1888.

Years.	Average daily wages.	Price of wheat per hectoliter (a).	Bushels of wheat average daily wages would purchase.
1837 to 1846	$0.27	$5.05	0.151
1847 to 1856	.36½	5.82	.178
1857 to 1866	.45	4.98	.255
1867 to 1876	.55½	6.06	.259
1877 to 1886	.60½	4.87	.354
1887	.61	3.70	.467
1888	.61½	3.76	.463

a Hectoliter equals 2.8377 bushels.

This table shows that though the period of the greatest increase in nominal average wages was between the years 1837 and 1876, and that wages were comparatively steady during the period 1877 to 1888, yet that if wages were expressed in wheat this latter period would be the one of the greatest increase. It thus affords an illustration of the necessity of distinguishing between nominal and actual wages.

INSTITUTIONS TO AID WORKINGMEN TO BECOME HOUSE OWNERS.

It has been the consistent policy of the company to encourage the workingmen to become the proprietors of their houses. To do this it has, according to circumstances, either bought and subdivided land which it afterwards offered to its employees on favorable terms, or has made advances to them with which to build, repayable in installments, or has itself built houses that it sold on the installment plan. In this way over one thousand of its employees have become house owners. In addition to this the company has also encouraged the acquisition of garden plots by employees. The acquisition of gardens has gone along with that of houses. A great many of the owners of houses are reported as owning a cow, and almost all of them keep one or more pigs.

The company has also made notable efforts along the line of constructing houses to rent to those of its employees who are unable or unwilling to become house owners. In general these houses are constructed in groups of two or four, with but a single tenement to each house. A house of four rooms, with shed attached and a small garden, rents for from 80 to 100 francs ($15.44 to $19.30) per year, or about 10 per cent of the wages of the renter. The company says regarding the question of housing:

Our experience has demonstrated that isolated and independent houses form the preferable system from every point of view for workingmen.

AID AND INSURANCE FUNDS.

Workingmen's aid societies in connection with the Vieille-Montagne Company consist of three institutions by which the European workingman usually provides for the future or the contingencies of sickness and old age: (1) Sick and acccident fund, (2) old-age pension fund, and (3) savings banks.

The sick and accident fund was organized as early as 1847. Its objects are:

1. To furnish gratuitously in cases of sickness or accident medical aid to workingmen and members of their families dependent upon them.

2. To grant to those thus temporarily incapacitated for work pecuniary aid during their invalidity. The amounts of these indemnities have varied at different periods. Under the present regulations, which went into effect in 1886, the amount paid in each case is determined by a permanent commission, but can not exceed one-third of the recipient's average wages in case of sickness or one-half of his wages in case of incapacity resulting from an accident.

3. To contribute by a grant of money toward defraying the expense consequent upon childbirth in a workingman's family.

4. To contribute to the funeral expenses of a workingman or of a member of his family by the grant of a fixed indemnity of 20 francs ($3.86) in the case of a married workingman, 15 francs ($2.90) for unmarried adults, and 5 francs ($0.97) for children, in addition to furnishing the coffin.

5. To furnish temporary aid to widows, orphans, and parents of deceased workingmen. The rate of these indemnities is as follows: 50 centimes (10 cents) per day to the widow of a workingman; 75 centimes (14 cents) per day to the widow of an overseer; 10 centimes (2 cents) per day to each child until he or she is 14 years of age, or in case the other parent is also dead 25 centimes (5 cents) per day, and 25 centimes (5 cents) to the parents of the deceased.

Previous to April 11, 1891, the resources of this fund were obtained by a contribution on the part of the workingmen of an amount equal to from 1 to 5 per cent of their wages, the company making up any balance necessary for the complete carrying out of its provisions. On that date, however, the company assumed the entire charge of the fund, the workingmen henceforth contributing in no way to the support of the fund.

The old-age pension fund likewise dates from 1847, and was established in order to grant life pensions to workingmen who had become unable to work either as the result of old age or sickness after having been in the employment of the company a certain period of years. The amount of the pension is fixed at one-fifth of the amount of the pensioner's average annual wages, obtained by taking an average of the three years in which he earned the most during the last five years of his service. This amount, however, can not be less than 50 centimes (10 cents) nor more than 1 franc (19 cents) per day. In order to be entitled to a pension the workingman must have had 15 years of continuous service with the company and be totally incapacitated for work. If, however, he is incapacitated as the result of an accident received in the service of the company through no fault of his own, he is entitled to a pension irrespective of the length of his service. The expenses of this fund have always been borne by the company. These two funds supplement each other, and together form one system. To some extent, therefore, space will be economized by showing the results of their operations in the same tables. The first table shows the total expenditures of each fund each year since 1850, the average expenditure per member, and the relation that the total expenditure bears to average wages.

EXPENDITURES OF THE SICK AND ACCIDENT FUND AND THE OLD-AGE PENSION FUND OF THE VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, 1850 TO 1888.

Year.	Expenditures.			Average expenditure per member.			Per cent of total expenditures of total wages.	Number of pensioners.
	Aid fund.	Pension fund.	Total.	Aid fund.	Pension fund.	Total.		
1850	$4,036.60	$1,443.25	$5,479.85	$2.07	$0.74	$2.81	2.65	(a)
1851	6,464.15	3,476.89	9,941.04	3.10	1.67	4.77	3.88	(a)
1852	5,503.98	4,228.24	9,732.22	2.45	1.89	4.34	3.55	(a)
1853	9,058.65	5,460.74	14,519.39	2.05	1.23	3.28	2.93	(a)
1854	16,868.78	7,841.78	24,710.56	2.83	1.32	4.15	3.21	42
1855	18,522.60	8,368.67	26,891.27	2.74	1.24	3.98	3.51	(a)
1856	22,505.35	8,927.02	31,432.37	4.15	1.65	5.80	4.11	(a)
1857	23,996.85	8,764.13	32,760.98	4.37	1.60	5.97	4.21	(a)
1858	19,431.24	8,797.91	28,229.15	3.20	1.45	4.65	3.37	(a)
1859	16,033.09	9,023.71	25,056.80	3.24	1.82	5.06	3.69	(a)
1860	17,028.20	9,650.77	26,678.97	3.38	1.92	5.30	4.10	51
1861	17,186.26	10,569.65	27,755.91	3.26	2.01	5.27	4.06	(a)
1862	17,127.78	11,788.83	28,916.61	3.21	2.21	5.42	4.10	(a)
1863	19,398.04	12,802.27	32,200.31	3.49	2.30	5.79	4.26	(a)
1864	21,266.28	12,982.34	34,248.62	3.64	2.22	5.86	4.29	(a)
1865	23,157.30	12,638.60	35,795.90	3.72	2.03	5.75	4.37	(a)
1866	29,111.73	14,947.85	44,059.58	4.48	2.30	6.78	4.69	(a)
1867	24,713.07	19,649.91	44,362.98	3.69	2.94	6.63	4.52	(a)
1868	27,044.12	19,860.09	46,904.21	3.98	2.92	6.90	4.70	(a)
1869	27,986.16	20,653.89	48,640.05	3.94	2.90	6.84	4.57	(a)
1870	27,206.82	21,305.27	48,512.09	3.94	3.09	7.03	4.61	57
1871	27,810.14	23,503.16	51,313.30	3.91	3.30	7.21	4.61	(a)
1872	27,674.27	25,803.33	53,477.60	3.91	3.65	7.56	4.53	(a)
1873	29,410.69	22,241.90	51,652.59	4.21	3.18	7.39	4.10	(a)
1874	31,641.77	23,302.44	54,944.21	4.69	3.45	8.14	4.35	(a)
1875	36,766.12	32,525.71	69,291.83	5.68	5.02	10.70	5.70	155
1876	36,664.98	45,694.10	82,359.08	5.66	7.06	12.72	6.77	(a)
1877	39,176.88	52,453.15	91,630.03	5.50	7.37	12.87	7.08	(a)
1878	37,804.84	51,252.31	89,057.15	5.26	7.12	12.38	6.96	(a)
1879	36,008.01	49,370.75	85,378.76	5.23	7.16	12.39	6.90	(a)
1880	38,308.76	48,670.36	86,979.12	6.02	7.65	13.67	7.64	246
1881	38,670.25	48,049.67	86,719.92	5.64	7.00	12.64	6.95	340
1882	28,749.09	48,532.16	77,281.25	4.13	6.97	11.10	5.88	352
1883	29,915.00	48,986.30	78,901.30	4.33	7.10	11.43	6.21	374
1884	35,713.11	49,949.36	85,662.47	5.45	7.63	13.08	7.25	469
1885	29,469.94	56,418.53	85,888.47	4.83	9.25	14.08	7.82	474
1886	44,988.11	34,718.57	79,706.68	7.63	5.88	13.51	7.49	472
1887	40,970.81	35,634.36	76,605.17	6.59	5.73	12.32	6.76	508
1888	39,859.71	34,004.48	73,864.19	6.12	5.22	11.34	6.32	487

a Not reported.

The following table shows in greater detail the objects of the expenditures of the combined funds for the years 1850 to 1888, inclusive, as well as the proportion each item of expense bears to the total amount expended:

AGGREGATE EXPENDITURES OF THE SICK AND ACCIDENT FUND AND THE OLD-AGE PENSION FUND OF THE VIEILLE MONTAGNE ZINC MINING AND SMELTING COMPANY, BY OBJECTS OF EXPENDITURE, 1850 TO 1888.

Objects of expenditure.	Expenditures, 1850 to 1888.	Average yearly expenditures.	Per cent of each item of expenditure of—	
			Total expenditures.	Total wages.
Indemnities for accidents, sickness, and partial invalidity	$504,173.90	$12,927.54	25.47	1.28
Medicines	264,514.22	6,782.42	13.36	.67
Medical service	259,426.93	6,651.97	13.11	.65
Funeral expenses and other expenditures	154,318.94	3,956.89	7.80	.39
Old-age and invalidity pensions	418,599.24	10,733.31	21.15	1.06
Payments to widows	294,239.31	7,544.60	14.86	.74
Payments to orphans	84,214.20	2,159.34	4.25	.21
Total	1,979,486.74	50,756.07	100.00	5.00

These two tables serve a double purpose. In the first place, they show to how great an extent the wages of the workingmen are supplemented by their participation in these relief funds. The addition thus made to wages is seen to have steadily increased, both absolutely and relatively to wages, until 1880, after which it has varied more or less, with a slight tendency to decrease. Thus in 1850 each workingman received on an average benefits to the amount of 14.55 francs ($2.81), which represented an increase to his wages of 2.65 per cent. In 1860 the amount was 27.46 francs ($5.30), or 4.10 per cent; in 1870, 36.42 francs ($7.03), or 4.61 per cent, and in 1880, 70.83 francs ($13.67), or 7.64 per cent, while in 1888 the amount of benefits had sunk to 58.77 francs ($11.34), or 6.32 per cent. The average for the whole period represented an addition to wages of 5 per cent.

On the other hand, these tables, in common with similar tables given for the other industrial communities, have a theoretical interest to students of workingmen's insurance as showing how great an average expenditure is necessary on the part of a company if the funds are supplied by it, or how great a proportion of their wages must be sacrificed by the workingmen if the funds are maintained by them, in order to insure the steady operation of (1) a sick fund providing for the supply of medicine and medical attendance and a fixed sick benefit and (2) a pension fund for old and incapacitated workingmen and their widows and orphans.

The last table is of especial interest as showing what portion of this expenditure is devoted to each specific purpose.

In considering the significance of these figures the important facts should be noted that (1) expenses of administration are not included, (2) that the figures relate to a body of men that has been constantly increasing in numbers, (3) that necessarily the expenditures for pensions during the first few years after the inauguration of the fund would be comparatively light, but that as the fund became older the number of pensioners would increase materially. The company believe that a normal number has now been reached, varying between 450 and 500.

SAVINGS BANK.

The company first organized a savings bank in 1842. In the beginning but slow progress was made. For a good many years the number of depositors and the amount of deposits increased scarcely at all. Commencing with 1853, however, the use of the bank by employees has increased yearly. Thus while in that year there were but 126 depositors, representing scarcely 2 per cent of the personnel, in 1888 there were 900 depositors, or nearly 14 per cent of all employees. The following table shows the number of depositors, the amount of deposits, etc.,

for each year from 1853 to 1888. Five per cent interest on deposits has been paid from the start:

DEPOSITORS AND DEPOSITS IN THE SAVINGS BANK OF THE VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, 1853 TO 1888.

Year.	Depositors.	Amount deposited.	Amount withdrawn.	Interest earned.	Amount on hand at end of year.	
					Total.	Per depositor.
1853	126	.....	.....	.....	$11,751.19	$93.26
1854	153	$9,777.57	$6,703.66	$668.55	a 15,489.79	101.24
1855	147	6,767.35	7,749.14	763.90	15,271.90	103.89
1856	147	7,958.35	7,969.94	766.02	16,026.33	109.02
1857	181	8,001.39	5,434.68	829.13	19,422.17	107.30
1858	202	9,674.13	6,689.96	1,035.44	a 23,422.48	115.95
1859	209	8,839.59	7,590.30	1,199.88	a 25,890.95	123.88
1860	218	11,268.69	10,958.15	1,284.99	27,486.48	126.08
1861	192	7,846.41	11,851.16	1,309.12	a 24,792.78	129.13
1862	203	6,532.47	6,621.05	1,251.41	a 25,953.68	127.85
1863	212	8,371.37	10,618.67	1,264.73	24,971.11	117.79
1864	222	10,926.89	9,992.77	1,224.01	27,129.24	122.20
1865	260	15,312.81	10,089.65	1,529.14	33,881.54	130.31
1866	259	12,170.19	14,072.98	1,684.70	33,663.45	129.97
1867	288	12,576.85	10,576.79	1,676.78	37,340.29	129.65
1868	320	15,921.15	11,461.11	1,930.38	43,730.71	136.66
1869	462	19,846.38	10,920.32	2,434.31	a 43,511.08	94.18
1870	462	20,984.31	15,882.35	2,918.35	a 63,111.39	136.60
1871	461	21,114.01	16,476.99	3,145.51	70,893.92	153.78
1872	485	22,195.19	21,036.42	3,514.92	75,567.61	155.81
1873	518	23,705.03	21,261.65	3,891.46	81,902.45	158.11
1874	569	24,276.31	19,091.37	4,213.19	91,300.58	160.46
1875	611	36,551.11	24,257.01	4,922.47	108,517.15	177.61
1876	651	42,170.11	38,766.56	5,540.64	117,461.34	180.43
1877	686	43,609.70	38,379.98	6,126.01	a 124,957.08	182.15
1878	714	42,708.97	35,532.07	6,655.60	a 142,649.58	199.79
1879	728	55,012.53	42,072.46	7,109.54	162,699.19	223.49
1880	744	51,231.85	44,030.05	8,433.52	178,334.51	239.70
1881	757	63,986.25	52,465.31	9,391.96	199,247.41	263.21
1882	784	76,655.93	65,498.99	10,454.62	a 220,863.41	281.71
1883	815	72,606.60	62,945.98	10,510.97	a 241,995.75	296.93
1884	839	66,009.48	58,091.07	12,387.32	a 262,301.67	312.64
1885	804	77,740.59	80,077.82	13,285.16	a 273,249.79	339.86
1886	845	78,362.82	59,835.21	14,509.16	306,286.56	362.47
1887	880	77,503.78	67,553.28	15,834.11	a 332,264.36	377.57
1888	900	76,644.93	79,824.99	16,748.93	345,833.23	384.26

a These figures do not balance. They are given, however, as published by the company.

LIFE INSURANCE SOCIETY.

The aid and pension funds are intended solely for the benefit of the workingmen, strictly speaking. For the administrative force, including the engineer's office employees, etc., the company organized January 1, 1877, a life insurance society, believing that this form of making provision for the future was the most successful for the higher paid employees. According to the provisions of this society, each employee desiring to become a member is required to pay into the fund 3 per cent of his annual wages. To this the company adds an amount equal to 1 per cent of his wages. The amount of insurance is then calculated according to the tables in use by insurance companies. Every five years a balance sheet of assets and liabilities is struck, and if there is a surplus half of it is apportioned among the members, increasing pro rata their insurance, and the other half is carried to a reserve fund. The constitution determines the investment of the funds, which is

always made in approved securities. The society is administered by a central committee elected from among the members. The entire expense of administration and bookkeeping is borne by the company, so that there is absolutely no expense of management. Although participation in this society is purely voluntary, with scarcely an exception all of the employees of the company have become policy holders.

CONCLUSION.

What has been the result of the social work of the company? Concerning this there are available but two kinds of evidence: The testimony of the company itself and that of the employees as shown through statistics of the stability of their employment. Concerning the first, the company speaks unequivocally:

And now, first of all from the social point of view, has the company obtained that harmony between all who cooperate by their labor in the work of production; has it realized that ideal of social peace of which all economists and politicians dream? We do not venture to assert that this result has been definitely obtained, and that the workingmen of our establishments have already reached this degree of moral superiority. All that we can state is that up to the present time, despite the diversity of countries and variety of industries in which we are engaged, we have never had to suffer a strike in any one of our establishments, and that we have succeeded in obtaining a remarkable degree of stability in our corps of employees as regards the length of their employment, since, with an average of 6,500 employees, the average length of the time they have been employed has exceeded 12 years.

These facts find their natural explanation in all the advantages accorded to the workingmen, their high wages, participation in industrial profits, facilities for making savings and becoming owners of property, and security for the future through the organization of gratuitous aid in case of sickness, and the provision of pensions for workingmen incapacitated by old age or infirmities. There are more than 900 depositors in the savings bank, and more than 1,000 workingmen are the owners of their own homes. More than a fourth of all the employees are either house owners or are in possession of savings, the interest on which increases the resources of the family. All this is conducive to good order, good work, and peace. Such are the results of the system consistently practiced by the company.

Moreover, it is important to add that, in spite of the expenditures entailed by this course, these results have been obtained without at all sacrificing the financial prosperity of the company, but on the other hand have contributed to it. If the company has been able to pay to its shareholders each year during 50 years an average dividend of 20 per cent on their original investment, * * * it can be affirmed that the honor is due to the liberality with which the administration has treated its employees.

These results appear to be of such a nature as to determine the company to persevere in its course and to encourage others who have not yet entered this work to do likewise.

The following table showing the stability of the personnel speaks for the employees:

YEARS OF SERVICE OF EMPLOYEES OF THE VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, 1888.

Years of service.	Employees.	Per cent.	Years of service	Employees.	Per cent.	Years of service.	Employees.	Per cent.
Under 2	1,085	16.95	19 but under 20	151	2.36	37 but under 38	20	0.31
2 but under 3	574	8.97	20 but under 21	94	1.47	38 but under 39	24	.38
3 but under 4	349	5.45	21 but under 22	83	1.30	39 but under 40	11	.17
4 but under 5	376	5.87	22 but under 23	104	1.63	40 but under 41	12	.19
5 but under 6	294	4.59	23 but under 24	112	1.75	41 but under 42	9	.14
6 but under 7	277	4.33	24 but under 25	95	1.48	42 but under 43	8	.12
7 but under 8	214	3.34	25 but under 26	64	1.00	43 but under 44	3	.05
8 but under 9	200	3.12	26 but under 27	66	1.03	44 but under 45	2	.03
9 but under 10	177	2.77	27 but under 28	49	.77	45 but under 46	3	.05
10 but under 11	148	2.31	28 but under 29	66	1.03	46 but under 47	1	.02
11 but under 12	177	2.77	29 but under 30	38	.59	47 but under 48	2	.03
12 but under 13	173	2.70	30 but under 31	57	.89	48 but under 49	3	.05
13 but under 14	204	3.19	31 but under 32	81	1.27	49 but under 50	1	.02
14 but under 15	229	3.58	32 but under 33	25	.39	50 or over	4	.06
15 but under 16	178	2.78	33 but under 34	24	.38			
16 but under 17	168	2.63	34 but under 35	22	.34	Total	6,400	100.00
17 but under 18	175	2.73	35 but under 36	36	.56			
18 but under 19	112	1.75	36 but under 37	20	.31			

THE NETHERLANDS YEAST AND ALCOHOL FACTORY, AGNETA PARK, DELFT, HOLLAND.

Like the Familistère at Guise, this community represents the deliberate attempt to organize an industry on special lines so as to increase the solidity of interests of all concerned in the undertaking, to develop mutuality, and to create social institutions of all kinds. As at Guise, therefore, the introduction of a plan for participation in profits by the workingmen and the creation of a special industrial community were made integral parts of the scheme. While at Guise, however, a system of pure cooperation was adopted and a peculiar plan of tenement houses or familistères selected, at Delft a system of partial profit sharing and a village of isolated cottages were introduced. At both places, however, each of the various social institutions is related to all the others and together form one system.

This industry, founded by Mr. J. C. van Marken, is that of the manufacture of yeast, for which he has a market in a great many countries of Europe and in Great Britain. Alcohol, gin, and some other products are also manufactured as by-products. The first factory was built and operations commenced in 1869. The capital invested was 150,000 florins ($60,300). Since then a number of buildings have been added and the capital successively increased until in 1892 it was something over 1,200,000 florins ($482,400). The Netherlands Oil Manufactory was established in 1884, adjoining the yeast works, as a separate company. As Mr. van Marken, however, has a controlling interest in this company, the two enterprises, as far as social institutions are concerned, have for the most part been treated as one undertaking. The company employs between 250 and 300 men.

The key to the social system that has been created is found in the hierarchal organization of all the employees and the practice of a system of profit sharing, combined with the opportunity accorded to workingmen to become part owners of the capital stock of the company. Combined with these are a great variety of institutions, such as cooperative stores, sick funds, old-age, accident, and life insurance, institutions for promoting house ownership, etc.

THE ORGANIZATION OF LABOR.

The personnel of the company is divided into the following classes: Higher officials, officials and superintendents, lower officials and under superintendents, clerks and workingmen, and assistant clerks and helpers. The latter class consists of persons under 20 years of age who have not yet fully learned their calling. The salaries of higher officials, officials, and superintendents are determined by the directors. All employees under these grades are paid by the hour. The wages of an under superintendent are 14 florins ($5.63) per week of sixty hours. Under that grade employees are paid in accordance with the nature of their work, and are divided into six wage classes, receiving, respectively, 16.5, 17, 17.5, 18, 18.5, and 22 Dutch cents ($6\frac{3}{5}$, $6\frac{4}{5}$, 7, $7\frac{1}{5}$, $7\frac{2}{5}$, and $8\frac{4}{5}$ cents) per hour.

Care has been taken that the wages for a full day's work with proper effort can not fall below that necessary for the maintenance of an ordinary family. The minimum is fixed at 12 florins ($4.82) per week. Helpers receive 12 Dutch cents ($4\frac{4}{5}$ cents) per hour, with a 10 per cent advance for overtime work. The office force receives the following weekly wages on the basis of $7\frac{1}{2}$ hours' work per day: Assistant clerks, 7 florins ($2.81); clerks, 10 florins ($4.02); minor officials, 15 florins ($6.03), and 15, 22, and 23 Dutch cents (6, $8\frac{4}{5}$, and $9\frac{1}{5}$ cents) per hour, respectively, for overtime work. Members of the force of a lower grade than minor officials and superintendents whose work requires special knowledge receive enhanced wages.

Besides the above classification as to the nature of the occupation, there is another division of employees into five classes, in accordance with the energy and zeal displayed while at work. The object of this classification is to form the basis for a scheme of premium payments. All employees above the first class receive premiums, amounting to 2 per cent of their wages for the second class, 5 per cent for the third class, 10 per cent for the fourth class, and 20 per cent for the fifth class. New employees are placed in the first class. Promotions are then made annually on the 1st of January according to the devotion to duty that has been shown by the employees, one step only being made at a time. Neglect of duty is punished by failure to promote or by reduction to a lower class.

In addition to this, extra premiums may be paid for special services,

and finally premiums for economy in the use of working time, raw materials, fuel, etc. The classification of the personnel and the premiums awarded are kept secret by the directors.

PARTICIPATION IN PROFITS.

The participation in profits consists of 10 per cent of the net gains of the company. Of this not more than one-fourth may be devoted to purposes of public utility benefiting all the employees. The balance is distributed in accordance with the grade and merit class of the employees. The employees of the five different classes receive their share in proportion to two, three, four, six, and eight times the amount of their salaries. Thus in 1890 the employees received $1\frac{3}{4}$, $2\frac{5}{8}$, $3\frac{1}{2}$, $5\frac{1}{4}$, and 7 per cent of the amount of their wages as shares in profits.

From 1870 to 1890, 2,554,000 florins ($1,026,708) were paid out in wages, 315,000 florins ($126,630) in premiums, 81,000 florins ($32,562) as shares in profits, and 100,000 florins ($40,200) for the insurance of employees, or a total of 3,050,000 florins ($1,226,100). During this same period 2,024,000 florins ($813,648) were credited to the capital account, of which 984,000 florins ($395,568) were paid into the amortization fund, 96,000 ($38,592) to the reserve fund, 360,000 ($144,720) were counted as net profits, 389,000 ($156,378) interest on capital, and 195,000 ($78,390) interest on bonds.

THE HOUSING OF EMPLOYEES.

As a matter of course the provision of houses for the workingmen constitutes an essential feature of an attempt such as that of Mr. van Marken to build up a special industrial center. In doing this Mr. van Marken desired to have the employees cooperate as far as possible in the work. Instead, therefore, of directly providing houses, he organized among his employees a cooperative society with a capital of 160,000 florins ($64,320). To this society he gave 3,000 florins ($1,206) in cash for founders' shares to that amount and turned over a tract of 4 hectares (about $9\frac{7}{8}$ acres) in return for founders' shares to the amount of 29,000 florins ($11,658). The remaining 128,000 florins ($51,456) of the capital stock was raised by a loan at $4\frac{1}{2}$ per cent interest, to secure which a mortgage on the property was given. With this money the ground, which was named Agneta Park, was laid out as a park, and in it were erected 86 houses. The community thus created is one of unusual attractiveness. The streets are in all cases winding and bordered by shade trees and lawns. In the center of the grounds an artificial lake has been constructed of sufficient size to permit of boating. The houses are built on the Mulhouse plan, each having a garden adjoining. The material is of brick, and various plans were selected so as to give to each house a distinct character. The rents average 2.25 florins (90 cents) per week.

The system by which the members of the cooperative society were to become the owners of the property is somewhat similar to that by which the workingmen of Guise became the owners of the plant in which they labored. The total rent is so fixed as to represent 7½ per cent return on the cost of the land and buildings. Out of the total receipts are paid, first, the expenses of maintenance and management, then 4½ per cent interest on loans and 5 per cent dividends on founders' shares. Ten per cent of the balance goes to the reserve fund, and the remainder is devoted to liquidating the mortgage. At the same time this latter amount is credited to the individual tenants in proportion to the rents paid. As soon as a tenant has in this way 100 florins ($40.20) credited to his account he comes into possession of a share of stock bearing interest at 3 per cent. It is then only a matter of time when all the stock of the cooperative society, including the founders' shares, which will be replaced by ordinary shares, will be held by the tenants, who thus become owners of the property. Shares of stock can only be transferred with the consent and through the agency of the board of directors. Once the shares are all held by the tenants the system adopted at Guise of canceling and redeeming the old shares and issuing new ones in their place will be practiced.

In addition to providing dwelling houses, this cooperative association also runs a cooperative store, a building for which has been erected in Agneta Park. This store sells food products, clothing, and dry goods. Profits from its operations are added to rents and distributed in the same way, credit being given in proportion to the value of the purchases of each tenant.

OTHER SOCIAL INSTITUTIONS.

In addition to these efforts relating to housing and profit sharing, there has been created a great variety of social institutions. Among these may be mentioned savings banks, funds for the insurance of employees against sickness, accidents, old age, and death and for the pensioning of widows of workingmen, educational and recreative institutions, and an assembly of workingmen and heads of departments for the purpose of discussing all matters relating to the mutual interests of the workingmen and the establishments and the settlement of difficulties that may arise. Without entering into details, the general features of these institutions can be briefly given.

The insurance of employees of course constitutes the most important class of workingmen's institutions. In case of sickness employees receive from the company their full wages for a period not exceeding eight weeks. In addition all employees are compelled to belong to a fund for securing medical aid and medicines. Their weekly contributions are 12 Dutch cents (4⅘ cents) for men, 8 (3⅕ cents) for women, and 3 (1⅕ cents) for each child. For this the members, in case of sickness,

receive free medicines and medical attendance, except that patients are required to pay 5 Dutch cents (2 cents) per visit in the case of clerks and workingmen and 10 and 15 Dutch cents (4 and 6 cents) in the case of higher officials.

In case of accidents while at work employees receive full wages until their recovery. In 1884 an accident insurance fund was inaugurated. This fund pays two full years' wages in case of death, loss of sight, or loss of two limbs; one year's wages for the loss of an eye, a foot, or the right hand; 35 per cent of the past year's wages for the loss of the left hand, and from 5 to 25 per cent for the loss of one or more fingers. This insurance is paid whether the accident occurs while at work or not. The premium required from members is 0.65 per cent of their wages.

In regard to the provision of old-age insurance, the company has adopted a peculiar but at the same time effective system. The company retains 7 per cent of the wages of each employee who has been a year or more in its service. With this money it purchases each year a paid-up old-age pension from an insurance society that will begin to run when the employee reaches the age of 60 years. By this arrangement the longer a man remains in the company the greater the value of the old-age pension to which he acquires a right. Each year's operation constitutes a separate transaction. A person thus, after ten years' service, is in possession of ten paid-up old-age pension policies. This system presents the very great advantage that should a man leave the service of the company he retains possession of his policies, and the acquisition of an old-age pension is thus in no way dependent upon employees remaining in the employment of the company.

A system of life insurance has been added to that of old-age pensions. By paying 2 per cent of their wages in addition to the 7 per cent for old-age pensions the company secures for its employees a life-insurance policy equal to 9 per cent of all the wages received by them during the time that they are insured.

As the above life insurance is insufficient to prevent distress in the case of families of persons who died after a short period of insurance, a special widows' fund has been established. For the support of this fund each director and employee contributes 1 per cent of his wages. The company adds an amount equal to one-half of the total of these contributions. Any widow who is unable to provide for her own or her children's subsistence, either by her earnings or from other sources, receives 4 florins ($1.61) per week for herself and 1 florin (40⅕ cents) for each child, the total, however, to in no case exceed 8 florins ($3.22). In September, 1893, 15 widows and 31 children were receiving aid from this fund.

The organization for bringing together the workingmen and the heads of departments for the purpose of the common consideration of questions relating to their interests, or "The Kernel" as it is called, though

somewhat differently organized from the councils of arbitration and conciliation at Mariemont and Bascoup, yet follows so closely the general lines of action of these institutions that it would be superfluous to give the details of its organization and operations.

The remaining institutions, such as the savings banks, of which there are two, a kindergarten, manual-training, housekeeping, and other schools, and a gymnasium, reading room, and casino, though of course of importance, do not require any extended comment.

THE CHOCOLATE FACTORY OF MENIER, NOISIEL, FRANCE.

The village of Noisiel, the seat of the chocolate factory of Menier, though interesting in itself, offers but few points for an extended study. Though it is a pure type of an industrial village, the management of affairs has been so completely retained in the hands of the proprietor that no opportunity has been afforded for the development of workingmen's institutions on the principle of mutuality. The village has been managed entirely as a branch of the general industrial enterprise, so that information concerning it can not well be distinguished from that of the manufacturing branch proper.

Though M. Menier's industry dates from 1825, the industrial village itself was only constructed in 1874. The village is absolutely removed from all other houses and forms a distinct community presenting all the necessary houses, such as schools, restaurants, stores, etc., for a self-contained existence. At the present time there are 295 tenements. They are built in groups of two and are exceptionally well constructed and comfortable. The general appearance of the group with its open spaces and shade trees is that of a charming country village. (*a*) The total number of employees of the works is about 1,500, but these houses are sufficient to accommodate practically the entire personnel, as the industry is such as to permit of the advantageous employment of women and children, and in consequence it is customary for the wives and daughters of workingmen to be employed as well.

Absolutely no opportunity is given for the development of institutions by the workingmen themselves, nor has M. Menier himself created many such. The work in this direction consists chiefly in the maintenance of a relief fund and the support of primary schools. Every care, however, seems to have been taken to make the condition of the employees as comfortable as possible. The village is so managed as to produce a moderate income on the money invested in it.

a For details concerning these houses see the Eighth Special Report of the Department of Labor on the Housing of the Working People.

IRON AND STEEL WORKS OF SCHNEIDER & CO. LE CREUZOT, FRANCE.

Though Le Creuzot is not an industrial center possessing a unified and homogeneous character of such a nature as to warrant its study in detail as an industrial village, it should at least be noticed on account of the important industrial and social work of the iron and steel works of Schneider & Co. This establishment is one of the most important in France, and it employs between 12,000 and 13,000 workingmen. In connection with its works at Le Creuzot the company has organized a great many institutions for the benefit of its employees. It has erected 466 houses for renting to its workingmen; it has facilitated the acquisition of homes through the advancement of money with which to build; it has provided liberally for the support of schools; an efficient medical service for the gratuitous care of sick and injured workingmen is maintained. Since 1877 it has provided for the pensioning of its old employees through contributions to the National Old-Age and Invalidity Fund. In 1889 the company reported to the Paris Exposition that during the year 1888 the total amount expended by it for the benefit of its employees was 1,632,000 francs ($314,976).

RATES OF WAGES PAID UNDER PUBLIC AND PRIVATE CONTRACT.

BY ETHELBERT STEWART.

The tables which immediately follow are the results of an original investigation in the cities of Baltimore, Boston, New York, and Philadelphia as to the wages paid, first, to those engaged on public work employed directly by the city or State, second, to those engaged on public work employed by contractors, and, third, to those engaged on private work employed by contractors or firms. The rates given in these three divisions are not only for the same occupations, but these occupations represent similar work so far as it was possible to obtain such data. Table I shows the number of persons in each occupation and the rate of wages per hour; also in addition to the wages per hour the hours of work per week are shown. Each city is taken up separately and in the following order: Baltimore, Boston, New York, and Philadelphia. The occupations for which wages were secured appear under each city in alphabetical order and are subdivided into the three classes previously given. For brevity's sake these classes are indicated in the tabulations by (1) public, by city or State, (2) public, by contractors, and (3) private, by contractors or firms.

Whenever it could be done wages were secured in each class for each occupation. This, however, was not always possible. Taking Baltimore in Table I, for instance, it is seen that for the first occupation, asphalt layers, no data are given for persons engaged on public work directly by the city or State, none having been found in the city; all such work, both public and private, having presumably been done through contractors or firms. The same is true for the next occupation, asphalt mixers; but for blacksmiths it is seen that data were secured in each of the three classes. In the first two occupations, asphalt layers and asphalt mixers, it is shown that the same wages per hour were paid in each of the two classes of work, and also that the same number of hours per week were worked. Blacksmiths employed on public work directly by the city or State, working 54 hours per week, were paid from 22¼ to 30½ cents per hour. Those employed on public work by contractors worked 60 hours per week, but were paid lower wages—from 17½ to 26 cents per hour, the majority being paid 22½ cents per hour. Those employed on private work by contractors or firms, working 60 hours per week, were paid also from 17½ to 26 cents per hour, the majority being paid 22½ cents. In this manner each of the occupations for which data are given may be analyzed and comparisons made.

Table II summarizes the data given in Table I so far as the wages per hour for each occupation are concerned, the data relating to the number of employees and hours worked per week being omitted. In this table each occupation is taken up in order, and for each of the three classes of employment the highest, lowest, and average wages per hour are given. For example, taking up the city of Baltimore, it is seen that carpenters on public work employed directly by the city or State were paid a maximum wage of 33¼ cents per hour, the lowest wage paid being 27¾ cents per hour, while the average was 32¼ cents per hour. Carpenters on public work employed by contractors were paid as much as 31¼ cents per hour and as little as 22¼ cents, the average wage per hour being 25¾ cents. For those working at the same occupation employed on private work by contractors or firms a maximum of 28 cents and a minimum of 18 cents per hour were paid, the average being 26½ cents. These averages, being based on the entire number of carpenters shown in Table I, afford a fair comparison. As shown, those employed on public work directly by the city or State were paid the highest average wage, 32¼ cents per hour; those engaged on public work under contractors were paid the lowest, 25¾ cents per hour, while those engaged on private work by contractors or firms were paid 26½ cents per hour.

It is strongly asserted in some quarters that the tendency of letting public contracts to the lowest bidder is to lower the wages of labor; that the lowest bidder is, generally speaking, the man who pays lowest wages or expects to use poorest material; that the idea that the lowest bidder is the one willing to accept least profits for himself is erroneous.

The legislature of the State of New York seems to have been convinced of the tendency of the contract system to lower the rates of wages, and in 1894 passed a law that all contractors on public works, State and municipal, must pay the prevailing rate of wages in the locality in which the work is being done. Pursuant to this law a clause like the following is inserted in all contracts:

All work to be performed and materials furnished to be according to the laws of the State and municipality applicable thereto, especially of chapter 622 of the laws of 1894, entitled "An act to amend chapter three hundred and eighty-five of the laws of eighteen hundred and seventy, entitled 'An act to regulate the hours of labor of mechanics, workingmen and laborers in the employ of the State, or otherwise engaged on public works,'" which provides that * * * "all mechanics, workingmen, and laborers now or hereafter employed by the State, or any municipal corporation therein, through its agents or officers, or in the employ of persons contracting with the State or such corporation for performance of public works, * * * shall receive not less than the prevailing rate of wages in the respective trades or callings in which such mechanics, workingmen, and laborers are employed in said locality. And in all such employment none but citizens of the United States shall be employed by the State, any municipal corporation therein, and by persons contracting with the State or any municipal corporation thereof."

An inquiry as to whether or not the inspectors on public works were expected to enforce this clause was answered by the statement that its enforcement was left to the trades unions and working people in whose interest the law was enacted. Aside, however, from all questions of the efficiency of this law, or the manner of its enforcement or nonenforcement, the fact of its existence can hardly be construed in any other light than as an admission by the legislature of the State of New York of a tendency in the contract system to lower the rates of wages and an attempt upon its part to check that tendency.

A glance at the tables will show that the highest rates of wages paid to unskilled labor are paid to those employed directly by the municipality or State. This is, generally speaking, true also of the skilled trades. Some of the exceptions will be noted further on. With the exception of Boston, all cities included in this investigation fix the rate of wages paid unskilled labor by city ordinance or, as in the case of New York City, by State law.

The city of Baltimore, by an ordinance passed May 1, 1883, provides that:

> The pay of all laborers shall be ten dollars per week, and no deduction from said amount shall be made except for such time as any of said laborers may lose by absenting themselves from the work upon which they may be at the time employed. (*a*)

The law also fixes the hours of labor, which must not exceed 9 in any one day, and provides that all city employees must be citizens and registered voters.

Philadelphia fixes the rate of pay for laborers at $1.75 per day of 9 hours, except for those employed in the public parks. In its annual appropriation ordinance it has a most elaborate scale, fixing the rate of wages for nearly every trade and occupation employed by any of the city departments. These rates are the maximum union rates in cases of organized trades, and corresponding rates for other occupations.

The same may be said of the laws of New York fixing rates of wages to be paid by New York City.

As a general statement it may be affirmed that the public, when employing directly by the day, pays the highest prevailing rate of wages for the shortest prevailing day's labor. This is especially true of the United States Government, where in the navy-yards of Boston and Brooklyn the highest outside rates for a 10-hour day are made the prevailing rates for an 8-hour day. Certain apparent exceptions to this rule have been omitted from the tables, as without an explanatory note in each case some misunderstanding might arise, and because they become, upon examination, not really exceptions. For instance, the city gas works of Philadelphia employs bricklayers at a rate considerably below the prevailing one. These men, however, work steadily or are paid in the absence of work—that is, they lose no time. The

a Ordinance No. 48, sec. 221, art. 48, p. 1020, City Code of Baltimore.

superintendent states that these men were given their choice of the maximum union rate of $4.05 and take work when they could get it, or $3 per day and steady employment. It will be readily seen that yearly earnings would be greater at the lesser daily rate. The exigencies of statistical tabulation would require that these men be brought in direct contrast with other bricklayers working on public contracts or on private work. It is only just, however, to say that these men—in fact, all employees of the city gas department—are paid higher wages than are paid either by the company furnishing gas to the city under contract or the company producing gas for private sale.

Another instance is that of 10 pavers employed by the city of Baltimore at rates much lower than the prevailing contract rate and lower than that paid to other pavers by the city. These men work for the waterworks department. They are steadily employed, are not union men, never required to do new work, and are in fact paid 25 cents more per day of 9 hours than other nonunion pavers get for 10 hours. With this explanation of the two most striking apparent exceptions, the statement may be repeated that the public when employing directly by day labor pays the highest prevailing rate for the shortest prevailing day. It would appear also, at least in a great many instances, that this can be done with the best economic results.

Probably the highest wages paid (in the occupations employed) are those paid by the trustees of the New York and Brooklyn bridge, being considerably higher than wages in like occupations by private concerns. Yet the trustees of this bridge have been enabled to reduce fares continuously, to abolish tolls for pedestrians, and magnificently improve the plant.

The city of Boston sprinkles its own streets by day labor, having practically abandoned the contract system for this work. On page 414 of the Annual Report of the Street Department of the city of Boston for 1895, the superintendent summarizes the result of the two systems as follows:

COMPARISON OF DAY WORK WITH CONTRACT WORK IN BACK BAY AND SOUTH END, BOSTON.

Back Bay:	
Contract work, 1894	$6,696.02
Day work, 1895	4,990.00
Saving in day work	1,706.02
South End:	
Contract work, 1894	5,128.50
Day work, 1895	2,540.00
Saving in day work	2,588.50
Total saving in day work over contract work	4,294.52

The above comparison is one of the most satisfactory evidences of the good results accomplished by the division this year. To it attention is specially directed.

The cost for watering in the Back Bay with fresh water in 1894 under contract was $575 per mile, while this year the same service was more efficiently rendered at an expense of $424 per mile.

The expense in the South End last year for watering was $460 per mile for fresh water, $630 per mile for salt water, while this year the watering was done under day work at an expense of $277 per mile.

As will appear in the tables following, the rate of wages paid by the city to the men who actually did the street watering was considerably greater than the wages paid by the contractors.

The city of Baltimore does all its street cleaning by day labor, except the machine sweeping. This is at present let by contract at a very low figure. Nevertheless, the street commissioner states upon computations made by him that he could more efficiently do the work and save the city enough in one year to pay for the machines and horses; that is, he could pay for the contractor's plant in one year and do better work. This computation was based upon a proposition to pay the legal city rate of wages, $1.66⅔ per day, whereas the present contractor pays the machine drivers but 80 cents per day. The cost of supervision and inspection increases as the contract price decreases, until it sometimes costs almost as much to make the contractor do his work as it would to do it.

The cost of inspection is enormous for cities, still greater proportionately for the Federal Government, and this cost must be added to the contract price before it can be determined whether or not the contract figure is a low one.

It is to be regretted that a minute and satisfactory statement of the cost of sewer construction, excavation, etc., could not be obtained in Boston, where an enormous amount is being done under both systems. The work performed by day labor is, however, generally experimental, and even where the conditions were practically similar no accounts that could be used for comparison were obtainable. One very significant statement was, however, made by the secretary of the metropolitan sewer commission to the effect that one piece of sewer had been constructed entirely by day labor because it undermined some private property, and notwithstanding their inspection the commissioners were afraid to risk the contract system because of the heavy damage suits that might result from faulty work.

Three of the cities in which this investigation was conducted clean their streets by day labor. These are Boston, New York, and Baltimore (except the machine sweeping). Baltimore does not keep a record of cost of cleaning per mile. Philadelphia lets her contract for a lump sum, and keeps no record of cost of cleaning per mile. The city of Brooklyn is included as a part of the metropolitan district of New York for purposes of comparison.

The cost of cleaning the streets in Boston is shown in the following statement:

COST PER MILE OF CLEANING STREETS IN EACH DISTRICT OF BOSTON, INCLUDING SUPERVISION, LABOR, YARD, AND STABLE EXPENSES.

Old districts.	Miles of streets cleaned.	Cost of cleaning streets.	64 per cent of the total cost of supervision.	73 per cent of the total cost of yard and stable expenses.	Total expenses.	Total cost per mile.
1	439.64	$5,496.26	$210.33	$998.86	$6,705.45	$15.25
2	486.80	5,488.50	210.03	997.44	6,695.97	13.75
3	652.00	7,395.90	283.04	1,344.04	9,022.98	13.83
4	399.53	6,207.84	237.56	1,128.16	7,573.56	18.90
5	167.66	4,722.78	180.73	858.29	5,761.80	34.36
6	207.89	4,776.40	182.78	868.03	5,827.21	28.03
7	94.35	4,201.00	160.77	763.46	5,125.23	54.32
9	204.96	4,091.73	156.58	743.61	4,991.92	24.35
Total	2,652.83	42,380.41	1,621.82	7,701.89	51,704.12	.....

Average cost per mile of cleaning streets in eight old districts, including supervision, etc., $19.49.

New districts.	Miles of streets cleaned.	Cost of cleaning streets.	64 per cent of the total cost of supervision.	73 per cent of the total cost of yard and stable expenses.	Total expenses.	Total cost per mile.
1	858.50	$12,004.77	$460.77	$2,188.11	$14,653.65	$17.06
2, 3	799.28	9,924.00	380.89	1,808.85	12,113.74	15.15
7	433.71	12,427.71	476.99	2,265.20	15,169.90	34.97
8	3,671.47	35,109.57	1,347.55	6,399.40	42,856.52	11.67
9	459.13	6,902.07	264.92	1,258.04	8,425.03	18.34
10	2,544.07	27,084.99	1,039.54	4,936.76	33,061.29	12.99
Total	8,766.16	103,453.11	3,970.66	18,856.36	126,280.13	.....

Average cost per mile of cleaning streets in six new districts, including supervision, etc., $14.40.

The average cost of cleaning the 11,418.99 miles actually swept, and comprising all the districts new and old, was $15.58 per mile. This includes much that is charged to other accounts in other cities, such, for instance, as dumping, etc. It will be seen from the tables that notwithstanding this low cost per mile, Boston paid higher rates of wages than any city except New York.

The cost of street cleaning in New York City for 1895 is shown in the following statement:

The whole cost of cleaning the streets (including every expense incurred in the administration of the department) was, per mile of street swept per day... $22.94

The whole cost of cleaning the streets (including every expense incurred in the administration of the department) was—

Per cart load of material collected (including permits)..... 1.86

Per cart load of material collected (excluding permits)..... 2.41

The cost of sweeping, not including supervision or any other expense, was, per mile of street swept per day..... 8.74

The cost of carting ashes, garbage, and street sweepings, not including supervision, was, per cart load of material collected..... .65

The cost of collecting and removing snow and ice, not including supervision, was, per cart load of snow and ice removed..... .72

The cost of final disposition of ashes, garbage, and street sweepings, was, per cart load of material removed on boats..... .29

At the same time the contract price in Brooklyn was $23 per mile for street cleaning, and $215,000 as a lump sum for removal of ashes, etc. To this contract price of $23 per mile must be added the cost of administration, which was 60 cents per mile, as estimated for this report. At that time the Brooklyn contractor was paying $1.50 per day of twelve hours. The contract price for 1896 is $17 per mile and $210,000 lump sum for removal of ashes. With the reduction in contract price, the wages of street sweepers are reduced to $1.25 per day.

Perhaps the most striking instance of reduction in wages as a result of contract employment is that shown for New York City under the occupation of snow shovelers. Formerly the city did this work by day labor, employing extra men as occasion required at $2 per day of eight hours. Last winter the work was let by contract, and the wages paid, as shown in the first table, was $1.25 per day of ten hours.

One feature of the investigation as originally designed, but which could not appear in tabular form, was the effect of the contract system or rates of wages paid under it upon wages paid on private work. When times are good the contractors who bid lowest get the public contracts and the smaller private ones, thus absorbing both this class of contractors and the cheaper labor which they employ, leaving the larger private contracts to the contractors styling themselves "legitimate," and who employ only union or high-priced labor. In times of business depression, however, such as the country has been experiencing, there is little else but public contracts to be had, and the employer of the higher-priced labor must bid low enough to get it, or have nothing to do. To enable their employers to meet these conditions, the Bricklayers' Union of Baltimore during last year reduced its scale of wages from $4 for eight hours to $3.60 for eight hours, and then again to $3 for nine hours, with eight hours on Saturday, this being the rate generally paid nonunion bricklayers. The carpenters of Baltimore and the painters of New York City are now having a similar struggle. Notwithstanding the State law and indictments under it, the painters of New York find it impossible to maintain their scale on public works. As a rule, however, it must be said that the effect of the contract system in reducing wages is largely confined to unskilled and unorganized labor, and that the trades are but slowly and slightly affected.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE.
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS.
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS.

BALTIMORE.

Number of employees.	Hours of work per week.	Wages per hour.
Asphalt layers:		
Public, by contractors.		
25	60	$0.20
Private, by contractors or firms.		
13	60	.20
Asphalt mixers:		
Public, by contractors.		
8	60	.15
Private, by contractors or firms.		
6	60	.15
Blacksmiths:		
Public, by city or State.		
2	54	.22½
1	54	.25
1	54	.30½
Public, by contractors.		
1	60	.17½
20	60	.22½
4	60	.25
2	60	.26
Private, by contractors or firms.		
1	60	.17½
3	60	.18
7	60	.20
20	60	.22½
2	60	.26
Blacksmiths' helpers:		
Public, by city or State.		
1	54	.22½
Public, by contractors.		
15	60	.13
2	60	.15
10	60	.16¾
2	60	.20
Private, by contractors or firms.		
15	60	.13½
5	60	.15
10	60	.16¾
Boiler makers:		
Public, by contractors.		
50	60	.22½
Private, by contractors or firms.		
50	60	.22½
Bricklayers:		
Public, by city or State.		
1	54	.22½
28	53	.39½
Public, by contractors.		
120	54	.33½
63	53	.34
28	48	.37½
Private, by contractors or firms.		
13	54	.33½
35	53	.34
10	53	.39½
Carpenters:		
Public, by city or State.		
4	54	$0.27½
18	54	.33½
Public, by contractors.		
70	54	.22½
15	60	.22½
140	54	.25
2	54	.27½
12	48	.31½
65	54	.31½
Private, by contractors or firms.		
20	60	.18
4	60	.20
15	60	.22½
134	54	.27½
70	54	.28
Cement finishers:		
Public, by contractors.		
1	60	.25
2	60	.35
Private, by contractors or firms.		
4	60	.35
Cement mixers:		
Public, by contractors.		
25	60	.12½
Private, by contractors or firms.		
10	60	.12½
Chandelier fitters:		
Public, by contractors.		
10	60	.20
Private, by contractors or firms.		
10	60	.20
Chandelier makers:		
Public, by contractors.		
15	60	.25
Private, by contractors or firms.		
20	60	.25
Coal handlers:		
Public, by contractors.		
5	a 60	a 15
Private, by contractors or firms.		
5	a 60	a .15
Cornice workers:		
Public, by contractors.		
3	54	.22½
2	54	.25
3	54	.27½
Private, by contractors or firms.		
6	54	.22½
2	54	.25
6	54	.27½
Curbstone setters:		
Public, by contractors.		
5	60	.30
Curbstone setters—Conc'd.		
Private, by contractors or firms.		
5	60	$0.30
Curbstone setters' helpers:		
Public, by contractors.		
10	60	.15
Private, by contractors or firms.		
10	60	.15
Draftsmen:		
Public, by contractors.		
1	54	.33½
25	54	.44½
Private, by contractors or firms.		
1	54	.33½
25	54	.44½
Drivers:		
Public, by contractors.		
15	60	.07
1	a 84	a .07½
5	a 84	a .08½
17	54	.09
12	a 84	a .09½
18	60	.12½
1	a 70	a .12½
2	60	.15
Private, by contractors or firms.		
10	60	.12½
1	a 70	a .12½
Drivers with single team:		
Public, by city or State.		
3	54	.25
84	54	.26¾
12	54	.30½
1	54	.33½
Public, by contractors.		
82	60	.20
Private, by contractors or firms.		
25	60	.20
12	60	.22½
Dynamo men:		
Public, by contractors.		
2	a 70	a .17½
2	a 70	a .22½
Private, by contractors or firms.		
2	a 70	a .17½
2	a 70	a .22½
Dynamo men's helpers:		
Public, by contractors.		
4	a 70	a .12½
Private, by contractors or firms.		
4	a 70	a .12½
Engine cleaners:		
Public, by contractors.		
5	a 70	a .12½
1	a 70	a .14½
Private, by contractors or firms.		
5	a 70	a .12½
1	a 70	a .14½

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BALTIMORE—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Engineers, chief:		
Public, by contractors.		
1	a 70	a $0.28½
Private, by contractors or firms.		
1	a 70	a .28½
Engineers, hoisting:		
Public, by city or State.		
6	54	.30½
Public, by contractors.		
2	60	.20
7	54	.22½
6	60	.22½
2	53	.22½
Private, by contractors or firms.		
8	53	.28½
Engineers, stationary:		
Public, by contractors.		
6	a 70	a .20
2	60	.22½
4	60	.25
Private, by contractors or firms.		
6	60	.20
6	a 70	a .20
4	60	.22½
3	60	.25
Engineers, stationary, assistant:		
Public, by contractors.		
3	a 70	a .18½
Private, by contractors or firms.		
3	a 70	a .18½
Engineers, steam roller:		
Public, by contractors.		
2	60	.40
Private, by contractors or firms.		
1	60	.40
Firemen:		
Public, by contractors.		
1	a 60	a .15
4	a 60	a .17½
2	a 77	a .18¾
10	a 70	a .20
Private, by contractors or firms.		
1	a 60	a .15
1	60	.16¾
4	a 60	a .17½
2	a 77	a .18¾
6	60	.20
10	a 70	a .20
Foremen, carpenters:		
Public, by contractors.		
10	54	.27½
1	54	.33¾
Private, by contractors or firms.		
5	54	.30½
2	54	.33¾
1	54	.39
2	54	.41¼
Foremen, cornice workers:		
Public, by contractors.		
1	54	$0.33¾
Private, by contractors or firms.		
3	54	.33¾
Foremen, electric lighting:		
Public, by contractors.		
1	a 70	a .33
Private, by contractors or firms.		
1	a 70	a .33
Foremen, electric lighting, assistant:		
Public, by contractors.		
1	a 70	a .21½
Private, by contractors or firms.		
1	a 70	a .21½
Foremen, laborers:		
Public, by city or State.		
10	54	.22½
6	54	.25
1	54	.27½
11	54	.29½
Public, by contractors.		
4	60	.20
6	60	.25
8	60	.30
4	60	.35
Private, by contractors or firms.		
4	60	.17½
6	60	.20
2	60	.25
Foremen, linemen:		
Public, by contractors.		
1	a 70	a .28½
Private, by contractors or firms.		
1	a 70	a .28½
Galvanized and sheet iron workers:		
Public, by contractors.		
24	54	.22½
2	54	.25
Private, by contractors or firms.		
16	54	.22½
4	54	.25
Gardeners:		
Public, by city or State.		
3	60	.18¾
1	60	.21¼
Private, by contractors or firms.		
4	60	.15
1	60	.20
Gas-holder riveters:		
Public, by contractors.		
150	60	.27½
Private, by contractors or firms.		
150	60	.27½
Granite cutters:		
Public, by contractors.		
43	48	$0.40¾
Private, by contractors or firms.		
51	48	.40¾
Ground men, electric lighting:		
Public, by contractors.		
6	a 70	a .12¾
6	60	.15
Private, by contractors or firms.		
6	a 70	a .12¾
6	60	.15
Hod carriers:		
Public, by contractors.		
3	53	.22¾
6	48	.25
10	54	.27¾
Private, by contractors or firms.		
6	53	.22¾
7	53	.28¼
Hostlers:		
Public, by contractors.		
2	a 84	a .07½
2	a 70	a .10
1	a 70	a .12¾
Private, by contractors or firms.		
1	a 70	a .12¾
Inspectors, electric lighting:		
Public, by contractors.		
8	a 70	a .17½
2	a 77	a .18¼
2	a 77	a .19½
Private, by contractors or firms.		
8	a 70	a .17½
2	a 77	a .18¼
2	a 77	a .19½
Iron workers, ornamental:		
Public, by contractors.		
12	60	.24
Private, by contractors or firms.		
12	60	.24
Iron workers', ornamental, helpers:		
Public, by contractors.		
6	60	.15
Private, by contractors or firms.		
6	60	.15
Iron workers, structural:		
Public, by contractors.		
85	60	.17½
30	60	.20
12	54	.22½
20	60	.22½
4	60	.25
Private, by contractors or firms.		
86	60	.17½
15	60	.20
20	60	.22½
18	54	.25

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE.
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS.
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BALTIMORE—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Iron workers', structural, helpers:		
Public, by contractors.		
33	60	$0.15
Private, by contractors or firms.		
30	60	.15
Laborers:		
Public, by city or State.		
661	54	.18½
1	54	.22½
Public, by contractors.		
30	60	.11½
1,750	60	.12½
112	54	.14
83	60	.15
10	48	.15¾
Private, by contractors or firms.		
100	60	.11½
691	60	.12½
46	54	.14
177	60	.15
20	54	.16¾
Laborers, building:		
Public, by contractors.		
26	60	.15
Private, by contractors or firms.		
14	54	.14
15	54	.16¾
Linemen:		
Public, by contractors.		
3	a 70	a .21½
3	a 70	a .24¾
6	60	.25
Private, by contractors or firms.		
8	a 84	a .20
3	a 70	a .21½
3	a 70	a .24¾
6	60	.25
Machinists:		
Public, by city or State.		
1	54	.27¾
1	54	.33⅓
1	54	.36
Public, by contractors.		
4	60	.15
1	60	.16¾
55	60	.22½
4	60	.25
Private, by contractors or firms.		
1	60	.16¾
3	60	.17
10	60	.18
2	60	.18½
6	60	.20
58	60	.22½
Machinists' helpers:		
Public, by contractors.		
8	60	.15
Machinists' helpers—Conc'd.		
Private, by contractors or firms.		
1	60	$0.12
1	60	.12½
3	60	.13½
11	60	.15
Masons, stone:		
Public, by city or State.		
19	53	.40¾
Public, by contractors.		
32	60	.30
6	60	.32½
6	60	.35
6	54	.36
5	54	.39
Private, by contractors or firms.		
18	54	.33⅓
2	54	.36
25	53	.39
Molders:		
Public, by contractors.		
46	60	.22½
80	60	.27½
Private, by contractors or firms.		
46	60	.22½
80	60	.27½
Molders' helpers:		
Public, by contractors.		
40	60	.12½
Private, by contractors or firms.		
40	60	.12½
Oilers:		
Public, by contractors.		
2	a 84	a .14¼
Private, by contractors or firms.		
2	a 84	a .14¼
Painters:		
Public, by city or State.		
2	54	.22½
Public, by contractors.		
3	54	.16¾
30	54	.22½
Private, by contractors or firms.		
6	54	.16¾
4	60	.17½
12	60	.18
26	54	.25
23	53	.28¼
Pattern makers:		
Public, by city or State.		
1	54	.27¾
Public, by contractors.		
16	60	.25
26	60	.30
Private, by contractors or firms.		
16	60	.25
25	60	.30
Pavers:		
Public, by city or State.		
11	54	$0.30½
Public, by contractors.		
20	60	.25
Pavers, Belgian block:		
Public, by city or State.		
33	53	.51
Public, by contractors.		
10	54	.39
17	54	.50
10	53	.51
Private, by contractors or firms.		
20	60	.22½
2	60	.25
10	54	.50
Pavers, cobblestone:		
Public, by city or State.		
34	53	.41¼
Public, by contractors.		
4	60	.30
43	54	.33⅓
11	54	.39
16	53	.39½
Private, by contractors or firms.		
20	60	.22½
10	60	.25
10	54	.39
Plumbers:		
Public, by contractors.		
10	54	.22½
30	54	.27¾
4	54	.30½
Private, by contractors or firms.		
40	54	.27¾
4	54	.30½
Rammers, Belgian block:		
Public, by city or State.		
17	53	.34
Public, by contractors.		
4	54	.19½
9	54	.39
6	53	.39½
Private, by contractors or firms.		
20	60	.13½
6	54	.39
Rammers, cobblestone:		
Public, by city or State.		
17	53	.22¾
Public, by contractors.		
2	60	.15
10	54	.19½
10	54	.22½
8	53	.22¾
Private, by contractors or firms.		
20	60	.13½
6	54	.22½

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BALTIMORE—Concluded.

Number of employees.	Hours of work per week.	Wages per hour.
Rammers, paving:		
Public, by contractors.		
4	60	$0.17½
Private, by contractors or firms.		
6	60	.17½
Repairmen, electric lighting:		
Public, by contractors.		
1	60	.08¼
1	a 70	a .12¾
Private, by contractors or firms.		
1	60	.08¼
1	a 70	a .12¾
Roofers, slate:		
Public, by contractors.		
12	53	.34
Private, by contractors or firms.		
16	53	.34
Steam and gas fitters:		
Public, by contractors.		
20	54	.27¾
Private, by contractors or firms.		
26	54	.27¾
Stonecutters:		
Public, by city or State.		
10	48	.43¾
Stonecutters—Conc'd.		
Public, by contractors.		
20	60	$0.32½
6	54	.36
1	54	.39
Private, by contractors or firms.		
18	48	.40¼
27	48	.43
Stone setters:		
Public, by contractors.		
7	48	.50
Private, by contractors or firms.		
12	48	.40¾
Tappers, waterworks:		
Public, by city or State.		
3	54	.22¼
Private, by contractors or firms.		
6	60	.16¾
Tinsmiths:		
Public, by contractors.		
20	60	.20
Private, by contractors or firms.		
20	60	.20
Tool sharpeners:		
Public, by contractors.		
3	48	.40¾
Tool sharpeners—Conc'd.		
Private, by contractors or firms.		
8	48	$0.40¾
Trimmers, electric lighting:		
Public, by contractors.		
17	a 70	a .12¾
14	a 70	a .14¼
Private, by contractors or firms.		
14	a 70	a .14¼
Watchmen:		
Public, by city or State.		
1	a 84	a .14
32	(b)	.22¼
Public, by contractors.		
4	a 80	a .11¼
Private, by contractors or firms.		
4	a 80	a .11¼
Wire men:		
Public, by contractors.		
10	54	.27¾
Private, by contractors or firms.		
2	55	.16¼
4	55	.22
1	55	.24½
5	55	.27¼
10	54	.27¾

BOSTON.

Blacksmiths:		
Public, by city or State.		
1	a 63	a .25
1	54	.25¾
1	54	.27¾
3	50	.28
1	48	.29
1	48	.32
1	54	.32
14	54	.33¼
1	48	.35
1	54	.36
3	48	.38
3	54	.39
4	48	.41
Public, by contractors.		
3	54	.22¼
2	59	.23
2	54	.25
5	60	.25
2	a 77	a .25
5	54	.27¾
7	60	.30
Private, by contractors or firms.		
6	56	.24
2	60	.25
15	56	.26¾
1	56	.27
5	56	.29
Blacksmiths' helpers:		
Public, by city or State.		
1	54	.22½
4	48	.25
1	54	.25
6	54	.27¾
10	48	.32½
Public, by contractors.		
5	60	.18¼
Private, by contractors or firms.		
15	56	.16
1	56	.18
5	60	.18¼
5	56	.19
Boiler makers:		
Public, by city or State.		
2	54	.33¼
Private, by contractors or firms.		
2	56	.20
4	56	.21
Boiler makers' helpers:		
Public, by city or State.		
1	54	.27¾
Private, by contractors or firms.		
4	56	.14
2	56	.18
Bracers:		
Public, by city or State.		
1	54	.22¼
11	50	.25
3	54	.25
5	66	.25
3	54	.27¾
1	54	.30¼
3	54	.33¼
Public, by contractors.		
2	60	.20
1	60	.22½
78	60	.22½
6	59	.23
16	a 84	a .23
35	54	.25
6	60	.25
14	a 77	a .25
Bricklayers:		
Public, by city or State.		
1	48	.41
2	48	.44
Public, by contractors.		
208	48	.42
19	54	.42
3	60	.42

a Work 7 days per week. b Not reported.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE.
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS.
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BOSTON—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Bricklayers—Conc'd.		
Private, by contractors or firms.		
25	54	$0.35
133	48	.42
Bricklayers, sewer:		
Public, by city or State.		
24	48	.55
3	50	.60
6	50	.70
Public, by contractors.		
3	54	.44½
12	a 84	a .58½
3	48	.60
11	54	.60
8	48	.65
50	48	.70
7	a 77	a .70
8	48	.75
Private, by contractors or firms.		
10	48	.70
Calkers, iron:		
Public, by city or State.		
34	54	.24½
2	54	.25
1	54	.26¾
2	54	.30½
Public, by contractors.		
37	60	.22½
12	60	.23
18	60	.25
6	59	.25½
Calkers, wood:		
Public, by city or State.		
4	54	.33¼
Public, by contractors.		
2	59	.30½
9	48	.40¾
Private, by contractors or firms.		
9	48	.40¾
Carpenters:		
Public, by city or State.		
1	54	.21½
15	54	.27¾
6	50	.28
8	66	.28
2	50	.30½
2	54	.30½
1	48	.32
20	54	.33¼
2	48	.35
2	48	.38
3	48	.40
3	54	.41¾
1	48	.45
Public, by contractors.		
4	60	.20
2	60	.22½
4	60	.25
9	a 77	a .25
4	59	.25½
14	a 84	a .27½
Carpenters—Conc'd.		
Public, by contractors—Conc'd.		
9	54	$0.27¾
32	53	.28
37	54	.28
8	53	.30
25	54	.30
Private, by contractors or firms.		
119	56	.24
15	56	.26¾
5	56	.27
9	54	.27¾
18	53	.28
34	54	.28
20	53	.30
38	54	.30
Carpenters' helpers:		
Public, by city or State.		
6	54	.22½
3	50	.24¾
3	54	.25
Public, by contractors.		
5	a 77	a .20
Private, by contractors or firms.		
2	56	.18
4	56	.19
24	56	.20
Cement finishers:		
Public, by contractors.		
3	54	.39
16	54	.44½
Private, by contractors or firms.		
11	54	.44½
Cement finishers' helpers:		
Public, by contractors.		
16	54	.22¼
3	54	.28
Private, by contractors or firms.		
11	54	.22¼
Coal handlers:		
Public, by city or State.		
3	a 63	a .22¼
2	a 63	a .22¾
3	a 63	a .23¼
Private, by contractors or firms.		
6	a 70	a. 17½
3	a 70	a .17½
4	a 70	a .18
Cooks:		
Public, by city or State.		
2	a 63	a .18½
Public, by contractors.		
2	a 75	a .21½
Private, by contractors or firms.		
1	a 75	a .18½
Draftsmen:		
Public, by city or State.		
1	54	.33¼
2	54	.39
3	54	.44½
1	54	.50
1	54	.55
1	48	.57
1	48	.75
Draftsmen—Conc'd.		
Private, by contractors or firms.		
3	56	$0.24
1	56	.26¾
2	56	.30¼
2	56	.32½
1	56	.37½
1	56	.42¾
Dredge crane men:		
Public, by contractors.		
2	60	.28¾
2	60	.30¾
Private, by contractors or firms.		
2	60	.30¾
Dredge runners:		
Public, by contractors.		
4	60	.28¾
3	60	.34½
Private, by contractors or firms.		
2	60	.34½
Drillers, stone:		
Public, by city or State.		
10	50	.25
4	54	.25
Public, by contractors.		
25	60	.17½
11	60	.20
2	54	.22½
2	54	.25
8	60	.25
50	54	.30
Private, by contractors or firms.		
5	54	.30
7	60	.30
Drivers:		
Public, by city or State.		
1	a 63	a .19½
189	54	.22½
30	54	.23½
1	48	.25
21	54	.25
6	a 63	a .25
1	a 63	a .27¾
1	48	.28
Public, by contractors.		
36	a 84	a .14½
128	60	.15
12	60	.16
31	54	.16¾
4	60	.16¾
34	60	.17½
154	54	.19½
2	60	.20
2	66	.20½
10	54	.22½
1	60	.25
3	48	.31¼
Private, by contractors or firms.		
8	60	.17½
3	a 70	a .17½
20	54	.19½
45	60	.20
10	54	.22½
4	60	.22½
81	a 70	a .22½
3	48	.31¼

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BOSTON—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Drivers with double team:		
Public, by city or State.		
1	54	$0.50
Public, by contractors.		
10	60	.40
50	60	.45
51	54	.55½
Drivers with single team:		
Public, by city or State.		
1	54	.33¼
Public, by contractors.		
1	60	.30
20	54	.33¾
Dump men:		
Public, by city or State.		
9	54	.27¾
Public, by contractors.		
4	a 77	a .20
Engineers, hoisting:		
Public, by city or State.		
2	50	.34½
3	48	.38
Public, by contractors.		
17	54	.22½
14	60	.25
4	a 77	a .25
3	60	.27½
2	a 77	a .30
5	54	.30½
4	48	.34½
Private, by contractors or firms.		
6	48	.34½
Engineers, stationary:		
Public, by city or State.		
2	a 70	a .21½
1	a 70	a .22
1	a 63	a .22¾
6	a 70	a .24¾
1	a 63	a .27½
3	54	.27¾
3	a 63	a .27¾
6	a 70	a .28¼
16	a 63	a .30½
17	54	.33¼
1	a 63	a .33¼
1	a 63	a .33½
4	48	.35
2	50	.36
4	a 63	a .36½
2	48	.38
1	54	.42½
2	a 63	a .45¾
1	63	.76
Public, by contractors.		
1	60	.17½
2	a 77	a .22
7	60	.25
4	a 77	a .25
8	a 84	a .27½
Private, by contractors or firms.		
1	a 70	a .20
14	a 70	a .22¾
1	a 70	a .25
Engineers, stationary—Conc'd.		
Private, by contractors or firms—Conc'd.		
12	a 70	a $0.25¾
1	a 70	a .28½
7	a 70	a .30
4	a 70	a .35¾
1	a 70	a .38½
1	a 70	a .40
Firemen:		
Public, by city or State.		
8	a 70	a .16½
1	a 63	a .22¼
3	a 63	a .22¾
3	48	.25
17	a 63	a .25
1	a 63	a .27¾
8	48	.29
Public, by contractors.		
2	60	.19¼
1	a 70	a .21½
Private, by contractors or firms.		
1	a 70	a .18¼
16	a 70	a .20
38	a 70	a .22¾
Foremen, blacksmiths:		
Public, by contractors.		
1	60	.32½
Private, by contractors or firms.		
2	56	.32
1	60	.32½
1	56	.35¾
1	56	.40
Foremen, bricklayers:		
Public, by contractors.		
1	60	.50
15	48	.53¼
5	48	.62½
Private, by contractors or firms.		
2	48	.45
5	48	.53¼
1	48	.55
Foremen, carpenters:		
Public, by city or State.		
1	54	44½
Public, by contractors.		
1	a 77	a .30
4	54	.33¼
2	53	.39½
Private, by contractors or firms.		
1	56	.30
2	56	.30¼
6	54	.33¾
1	56	.34
3	53	.39½
Foremen, dredge runners:		
Public, by contractors.		
1	60	.38½
1	60	.50
Private, by contractors or firms.		
1	60	55¾
Foremen, laborers:		
Public, by city or State.		
3	48	$0.25
4	54	.25
4	54	.27¾
2	54	.33¼
2	54	.36
1	66	.40
3	50	.42
1	66	.45
2	50	.60
Public, by contractors.		
3	60	.20
2	60	.22½
2	60	.23¼
6	60	.25
20	60	.30
2	54	.33¼
1	60	.33½
3	a 77	a .36½
6	a 84	a .39½
17	60	.40
5	59	.40¾
10	a 84	a .41¼
3	60	.50
2	a 77	a .54½
Private, by contractors or firms.		
1	a 70	a .16½
1	a 70	a .22½
1	56	.27
4	60	.30
Foremen, machinists:		
Public, by city or State.		
1	48	.41
Public, by contractors.		
1	60	.32½
Private, by contractors or firms.		
4	56	.32
1	60	.32½
Foremen, masons:		
Public, by city or State.		
3	48	.62½
Private, by contractors or firms.		
1	56	.42¾
Foremen, painters:		
Public, by contractors.		
12	48	.32
3	48	.35
4	48	.37½
Private, by contractors or firms.		
1	56	.30½
25	48	.32
6	45	.35
10	48	.35
8	48	.37½
Foremen, pavers:		
Public, by contractors.		
3	54	.44½
6	54	.55½
Private, by contractors or firms.		
1	54	.44½

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BOSTON—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Foremen, track men:		
Public, by contractors.		
1	54	$0.50
1	54	.55½
1	54	.61
Private, by contractors or firms.		
2	54	.50
1	54	.55½
1	54	.61
Gatemen:		
Public, by city or State.		
5	a 63	a .22¾
4	54	.23¾
Private, by contractors or firms.		
1	a 70	a .17½
2	a 70	a .20
2	a 70	a .21½
Glaziers:		
Public, by contractors.		
3	54	.27¾
Private, by contractors or firms.		
7	54	.27¾
Harness makers:		
Public, by city or State.		
1	54	.27¾
1	54	.30½
1	54	.33¼
1	54	.44½
Public, by contractors.		
1	54	.25
Private, by contractors or firms.		
1	56	.24
4	56	.26¾
Hod carriers:		
Public, by contractors.		
72	48	.25
Private, by contractors or firms.		
7	60	.23¼
43	48	.25
Horse feeders:		
Public, by city or State.		
2	a 63	a .25
Private, by contractors or firms.		
6	a 70	a .15
Horseshoers:		
Public, by city or State.		
1	54	.27¾
1	54	.33¼
2	54	.35¾
1	54	.36
Public, by contractors.		
1	53	.22¾
1	53	.31¼
Hostlers:		
Public, by city or State.		
4	a 63	a .22¾
4	a 63	a .23¼
Hostlers—Conc'd.		
Public, by city or State—Conc'd.		
1	48	$0.25
10	a 63	a .25
3	a 63	a .27¾
Public, by contractors.		
1	a 70	a .14¾
Private, by contractors or firms.		
51	a 63	a .16¾
1	a 63	a .18¼
Laborers:		
Public, by city or State.		
62	48	.19
75	54	.19½
19	48	.20
12	50	.20
68	54	.20
105	66	.20
3	48	.22
1,145	54	.22¼
1	a 63	a .22¼
239	54	.22½
4	50	.23
58	54	.23¼
81	50	.24
36	48	.25
3	54	.25
4	54	.27¾
2	48	.29
1	48	.32
2	48	.35
2	48	.39
Public, by contractors.		
1	60	.12½
485	60	.13½
597	60	.14
2,500	60	.15
217	a 77	a .15
120	59	.15½
20	60	.16
114	54	.16¾
106	60	.16¾
96	a 84	a .16¾
693	60	.17½
20	a 77	a .17½
50	59	.17¾
60	50	.18
331	54	.19½
30	60	.20
8	a 77	a .20
88	a 84	a .20
1	60	.21¼
10	54	.22¼
1	60	.24
2	60	.25
Private, by contractors or firms.		
43	a 70	a .15
61	56	.16
90	54	.16¾
702	60	.17½
16	56	.18¾
115	54	.19½
12	54	.22¼
Laborers, building:		
Public, by contractors.		
10	53	.20
6	54	.22¼
154	48	.25
Laborers, building—Conc'd.		
Private, by contractors or firms		
13	53	$0.20
12	54	.22¼
250	48	.25
9	54	.25
Lathers:		
Public, by contractors.		
9	48	.35¾
18	48	.37½
Private, by contractors or firms.		
30	48	.37½
Machinists:		
Public, by city or State.		
2	54	.27¾
6	54	.30½
5	54	.33¼
1	48	.35
4	54	.36
6	48	.38
1	54	.38¼
2	48	.41
Public, by contractors.		
6	60	.22½
2	59	.23
Private, by contractors or firms.		
6	60	.22½
6	56	.24
6	56	.25
1	56	.26
27	56	.27
4	56	.29
Machinists' helpers:		
Public, by city or State.		
3	54	.24½
1	54	.27¾
Private, by contractors or firms.		
3	56	.16
12	56	.18
21	56	.19
2	56	.20
9	56	.22
Masons:		
Public, by city or State.		
1	48	.47
2	48	.50
Public, by contractors.		
106	48	.42
1	60	.42
Private, by contractors or firms.		
13	56	.37½
256	48	.42
Masons, stone:		
Public, by city or State.		
6	54	.42
3	48	.47¼
Public, by contractors.		
16	48	.30
7	60	.30
13	54	.35
30	60	.35
27	54	.39
9	54	.42
14	60	.42

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BOSTON—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Masons' helpers:		
Public, by city or State.		
8	48	$0.28½
1	54	.30½
4	50	.33¼
1	54	.36
Public, by contractors.		
43	48	.25
10	48	.30
9	a 77	a .31
Private, by contractors or firms.		
125	48	.25
Miners:		
Public, by city or State.		
6	50	.25
3	66	.25
Public, by contractors.		
4	60	.22½
20	a 84	a .23
Oilers:		
Public, by city or State.		
1	a 63	a .22¼
7	a 63	a .22¾
3	a 63	a .25
2	a 63	a .27¾
Private, by contractors or firms.		
19	a 70	a .20
4	a 70	a .21½
7	a 70	a .22¾
Painters:		
Public, by city or State.		
1	54	.21¼
1	54	.22¼
5	54	.25
8	54	.27¾
1	48	.29
2	48	.32
2	54	.33¼
3	48	.35
1	54	.41¾
Public, by contractors.		
121	48	.30
12	48	.31¼
Private, by contractors or firms.		
9	56	.21
19	56	.22
1	56	.23
30	56	.24
2	56	.25
234	48	.30
10	48	.31¼
Painters, decorative:		
Public, by contractors.		
6	48	.35
Private, by contractors or firms.		
3	48	.35
Pattern makers:		
Public, by city or State.		
1	48	.41
Private, by contractors or firms.		
1	56	.29
11	56	.32
Pavers:		
Public, by contractors.		
232	54	$0.44½
10	54	.50
Private, by contractors or firms.		
56	60	.37½
20	54	.44½
5	54	.50
Pipe layers:		
Public, by city or State.		
2	54	.24½
4	54	.25
2	54	.26¾
7	54	.27¾
2	54	.33¼
Public, by contractors.		
52	60	.20
4	54	.22½
90	60	.22½
56	59	.23
Private, by contractors or firms.		
4	54	27¾
Plasterers:		
Public, by contractors.		
63	47	.43
17	48	.50
Private, by contractors or firms.		
90	47	.43
10	48	.50
Plasterers' helpers:		
Public, by contractors.		
46	47	.32
Private, by contractors or firms.		
52	47	.32
Plumbers:		
Public, by city or State.		
12	54	.33¼
1	54	.36
1	48	.41
1	48	.44
Public, by contractors.		
155	48	.47
17	48	.56¼
Private, by contractors or firms.		
1	56	.28¾
3	56	.34
102	48	.47
4	48	.56¼
Plumbers' helpers:		
Public, by contractors.		
135	48	.12½
Private, by contractors or firms.		
90	48	.12½
7	48	.15¾
Rammers, paving:		
Public, by contractors.		
191	54	.22¼
Rammers, paving—Conc'd.		
Private, by contractors or firms.		
55	60	$0.20
8	54	.22¼
8	54	.25
Riggers:		
Public, by city or State.		
4	54	.22¼
4	54	.25
3	54	.27¾
2	48	.29
5	48	.32
1	48	.35
2	48	.38
Public, by contractors.		
2	a 84	a .31¼
Private, by contractors or firms.		
1	60	.25
Rock men:		
Public, by city or State.		
74	54	.22¼
Public, by contractors.		
9	60	.16¾
55	60	.17½
25	54	.19½
44	60	.20
167	54	.22¼
Private, by contractors or firms.		
5	60	.17½
30	60	.20
Spikers:		
Public, by contractors.		
19	54	.25
Private, by contractors or firms.		
14	60	.22½
25	54	.25
Sprinklers, street:		
Public, by city or State.		
7	54	.22¼
20	54	.23¼
Public, by contractors.		
11	60	.16¾
7	54	.18½
Private, by contractors or firms		
15	54	.19½
Stonecutters:		
Public, by city or State.		
2	54	.27¾
17	54	.33¼
2	48	.38
4	50	.38
Public, by contractors.		
1	60	.35
1	60	.44
Private, by contractors or firms.		
3	60	.27½

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BOSTON—Concluded.

Number of employees.	Hours of work per week.	Wages per hour.
Sweepers, street:		
Public, by city or State.		
101	54	$0.22½
51	54	.22½
107	54	.23¼
Private, by contractors or firms.		
45	60	.17½
Timekeepers:		
Public, by city or State.		
3	54	.27¾
1	54	.33¼
Public, by contractors.		
2	60	.15
3	54	.27¾
1	60	.38¼
Private, by contractors or firms.		
4	54	.27¾
Tinsmiths:		
Public, by city or State.		
1	54	.33¼
Private, by contractors or firms.		
1	60	.20
1	60	.22
2	56	.24
2	60	.24
1	56	.29
Track men:		
Public, by contractors.		
19	54	.27¾
Track men—Conc'd.		
Private, by contractors or firms.		
56	60	$0.22½
25	54	.27¾
Watchmen:		
Public, by city or State.		
1	a 70	a .20
5	a 70	a .21
1	a 70	a .22½
3	a 63	a .23¼
4	48	.25
2	54	.25
2	a 63	a .25
4	a 70	a .25
Public, by contractors.		
2	a 84	a .14½
3	a 77	a .15½
2	a 84	a .16¾
Private, by contractors or firms.		
1	a 70	a .14¼
2	a 70	a .15
1	a 70	a .17½
6	a 70	a .20
3	a 70	a .22½
Water boys:		
Public, by city or State.		
2	54	.08¼
2	66	.12
Water boys—Conc'd.		
Public, by contractors.		
4	60	$0.05¾
9	60	.10
6	a 84	a .10½
Private, by contractors or firms.		
4	60	.07½
2	60	.15
Wheelwrights:		
Public, by city or State.		
2	54	.33¼
2	54	.36
1	48	.38
Public, by contractors.		
2	54	.27¾
1	54	.30½
1	54	.37
Wire men:		
Public, by city or State.		
2	54	.27¾
1	48	.32
4	54	.33¼
Private, by contractors or firms.		
1	60	.20
2	60	.22
2	60	.22½
1	60	.23¼
1	60	.25
4	60	.27½

NEW YORK CITY.

Number of employees.	Hours of work per week.	Wages per hour.
Ash and garbage lifters:		
Public, by city or State.		
430	48	.28¾
Public, by contractors.		
250	66½	.15¾
Ash tenders:		
Public, by city or State.		
10	48	.33
Private, by contractors or firms.		
23	a 84	a .14½
8	a 70	a .15
1	a 70	a .16
1	a 70	a .17½
1	a 70	a .19
Asphalt layers:		
Public, by contractors.		
31	60	.20
5	60	.22½
8	60	.25
Private, by contractors or firms.		
5	60	.20
12	60	.22½
28	60	.25
15	48	.28¼
Asphalt mixers:		
Public, by contractors.		
1	60	.22½
Private, by contractors or firms.		
6	60	.22½
3	60	.24
5	48	.25
20	60	.25
Axmen:		
Public, by city or State.		
2	48	.24
25	48	.28¾
56	48	.31¼
3	48	.36
1	48	.37½
2	48	.43¼
Private, by contractors or firms.		
4	60	.25
10	54	.27¾
Blacksmiths:		
Public, by city or State.		
1	48	.31
5	(b)	.35
11	48	.36
1	48	.37
16	48	.37½
1	(b)	.40
2	48	.41
4	48	.43¾
4	48	.44
Blacksmiths—Conc'd.		
Public, by contractors.		
1	60	.20
11	59	.25
1	53	.31¼
15	48	.37½
6	48	.40¾
Private, by contractors or firms.		
38	60	.20½
2	55	.21¾
1	55	.24½
26	60	.25
19	59	.25½
6	55	.27¼
15	60	.27½
11	55	.28¼
1	55	.29
6	60	.30
4	54	.33¼
2	54	.36
2	54	.39
15	48	.40¾
12	48	.43¾
4	48	.47
Blacksmiths' helpers:		
Public, by city or State.		
7	48	.25
8	48	.27
8	48	.28½
6	48	.31¼
8	48	.32¾

a Work 7 days per week. b Not reported.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE.
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS.
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Blacksmiths' helpers—Conc'd.		
Public, by contractors.		
1	53	$0.22¾
14	48	.25
3	48	.28¼
Private, by contractors or firms.		
21	55	.17½
10	60	.17½
2	55	.19
4	54	.19½
8	60	.20
1	55	.21¾
4	54	.25
15	48	.28¾
19	48	.31¼
Boiler makers:		
Public, by city or State.		
5	48	.35
2	48	.37½
14	48	.38
15	48	.41
Private, by contractors or firms.		
3	55	.24½
1	60	.25
11	60	.27½
9	55	.28¾
5	55	.30
12	54	.31
1	55	.42
Boiler makers' helpers:		
Public, by city or State.		
1	48	.24
15	48	.27
Private, by contractors or firms.		
10	55	.17½
1	60	.17½
2	55	.19
10	60	.20
Boiler setters:		
Public, by contractors.		
7	48	.50
Private, by contractors or firms.		
10	48	.50
Boiler setters' helpers:		
Public, by contractors.		
10	48	.28¼
Private, by contractors or firms.		
40	48	.25
Bracers:		
Public, by contractors.		
16	59	.20
35	60	.20
Private, by contractors or firms.		
20	29	.20¼
Brass finishers:		
Public, by contractors.		
6	60	.30
Private, by contractors or firms.		
6	60	.30
Bricklayers:		
Public, by city or State.		
52	48	.50
Bricklayers—Conc'd.		
Public, by contractors.		
12	48	$0.40
2	48	.43¾
127	48	.50
Private, by contractors or firms		
5	60	.40
123	48	.50
Calkers, iron:		
Public, by city or State.		
11	48	.31
19	48	.31½
10	48	.35
Public, by contractors.		
12	59	.20¼
Private, by contractors or firms.		
35	60	.20
25	59	.20½
Calkers, wood:		
Public, by city or State.		
1	48	.38
1	(a)	.39
22	48	.41
Public, by contractors.		
20	60	.22½
Private, by contractors or firms.		
237	54	.36
Car cleaners:		
Public, by city or State.		
45	48	.26½
Private, by contractors or firms.		
12	60	.15
289	b 70	b .15
6	b 70	b .17½
2	b 70	b .19
Car couplers:		
Public, by city or State.		
14	48	.26½
Private, by contractors or firms.		
63	b 84	b .12½
7	b 70	b .15
Carpenters:		
Public, by city or State.		
5	48	.37½
2	48	.38
4	48	.41
47	48	.43¾
28	48	.47
Public, by contractors.		
17	59	.25
8	48	.30
24	48	.37½
154	48	.43¾
Private, by contractors or firms.		
7	60	.17½
3	b 70	b .22½
1	b 70	b .24
8	55	.24½
6	60	.25
1	b 70	b .25
6	59	.25½
9	55	.26¼
Carpenters—Conc'd.		
Private, by contractors or firms—Conc'd.		
34	55	$0.27¼
12	b 70	b .27½
7	55	.28¾
1	b 70	b .29½
1	55	.30
14	60	.30
16	b 70	b .30
1	b 70	b .34½
1	55	.35½
1	b 70	b .38½
197	48	.43¾
1	b 70	b .48
1	b 70	b .49½
Carpenters' helpers:		
Public, by city or State.		
1	48	.25
1	48	.28¼
3	48	.31¼
3	48	.33
Public, by contractors.		
8	48	.25
20	40	.30
Private, by contractors or firms.		
1	60	.15
1	55	.19
2	b 70	b .20
1	b 70	b .22½
25	48	.30
Cement mixers:		
Public, by city or State.		
1	48	.28¼
Public, by contractors.		
3	60	.16¾
30	60	.17½
Private, by contractors or firms.		
50	60	.17½
4	60	.20
10	48	.25
Cleaners:		
Public, by city or State.		
49	48	.25
3	48	.31¼
Private, by contractors or firms.		
42	b 84	b 20¾
Conductors:		
Public, by city or State.		
140	48	.34½
Private, by contractors or firms.		
22	b 70	b .17½
20	b 70	b .19
1,075	b 70	b .20
27	b 70	b .22
316	b 70	b .23
Coppersmiths:		
Public, by city or State.		
2	48	.37½
8	48	.38
16	48	.41
Private, by contractors or firms.		
6	60	.25
6	60	.27½
2	54	.33¼

a Not reported.

b Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE.
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS.
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Coppersmiths' helpers:		
Public, by city or State.		
3	48	$0.25
16	48	.28
Private, by contractors or firms.		
2	54	.27½
Curbstone setters:		
Public, by contractors.		
29	60	.30
4	54	.50
Private, by contractors or firms.		
7	54	.33¼
Curbstone setters' helpers:		
Public, by contractors.		
19	60	.15
Private, by contractors or firms.		
3	54	.19½
Derrick men:		
Public, by contractors.		
6	48	.34½
7	48	.37½
Private, by contractors or firms.		
10	48	.34½
Derrick men's helpers:		
Public, by contractors.		
16	48	.31¼
Private, by contractors or firms.		
20	48	.31¼
Divers:		
Public, by city or State.		
1	48	1.20
6	24	1.25
Public, by contractors.		
10	60	.50
25	(a)	1.00
Private, by contractors or firms.		
8	(a)	1.00
Divers' tenders:		
Public, by city or State.		
2	(a)	.35
Public, by contractors.		
30	60	.25
Private, by contractors or firms.		
2	60	.25
Dock builders:		
Public, by city or State.		
147	(a)	.30
12	(a)	.39
Public, by contractors.		
56	60	.20
745	60	.22½
195	60	.25
11	48	.30
22	60	.30
Dock builders—Conc'd.		
Private, by contractors or firms.		
260	60	$0.22½
780	60	.25
20	58	.25¼
Draftsmen:		
Public, by city or State.		
1	48	.31¼
1	48	.37½
5	48	.38
4	48	.41
10	48	.50
1	48	.56¼
2	48	.62½
7	48	.63
Public, by contractors.		
2	54	.27½
3	54	.33¼
Private, by contractors or firms.		
3	60	.30
Drillers:		
Public, by city or State.		
2	48	.24
49	48	.28
Public, by contractors.		
28	59	.25½
Private, by contractors or firms.		
39	59	.25½
Drivers:		
Public, by city or State.		
222	48	.24
28	48	.25
567	48	.28¾
14	48	.31
1	48	.31¼
3	b 56	b .31¼
1	48	.36
Public, by contractors.		
450	66½	.15¾
52	60	.17½
577	60	.20
3	54	.22½
Private, by contractors or firms.		
38	b 70	b .17½
6	54	.19½
65	60	.20
725	b 70	b .20
20	54	.22½
30	60	.25
1	60	.30
Drivers with double team:		
Public, by city or State.		
2	48	.43¾
1	48	.47
8	48	.56¼
Public, by contractors.		
20	60	.35
Drivers with single team:		
Public, by city or State.		
5	48	.28¼
7	48	.31¼
89	48	.37½
20	48	.43¾
Drivers with single team—Conc'd.		
Public, by contractors.		
65	60	$0.27½
40	60	.30
25	60	.35
Private, by contractors or firms.		
10	60	.35
10	54	.39
Drivers with team and truck:		
Public, by city or State.		
1	48	.75
Public, by contractors.		
30	60	.45
Elevator constructors:		
Public, by contractors.		
2	48	.31¼
64	48	.37½
51	48	.40¾
1	48	.47
Private, by contractors or firms.		
46	48	.37½
61	48	.40¾
Elevator constructors' helpers:		
Public, by contractors.		
26	48	.28¼
11	48	.31¼
3	48	.34½
Private, by contractors or firms.		
25	48	.28¼
15	48	.31¼
Engineers, hoisting:		
Public, by contractors.		
17	48	.31¼
1	48	.37½
Private, by contractors or firms.		
3	60	.27½
9	48	.31¼
Engineers, locomotive:		
Public, by city or State.		
2	48	.31
3	48	.38
10	48	.41
20	48	.50
Public, by contractors.		
2	60	.30
Private, by contractors or firms.		
40	b 70	b .30
5	b 70	b .32½
7	b 70	b .35
447	b 63	b .39
Engineers, stationary:		
Public, by city or State.		
19	(a)	.35
5	50	.38¼
4	48	.40
1	50	.42½
12	48	.43¾
1	50	.46
3	48	.48
1	50	.57½
2	48	.60

a Not reported. b Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Engineers, stationary—Conc'd.		
Public, by contractors.		
23	59	$0.25
28	60	.25
20	60	.27½
1	53	.34
2	60	.35
Private, by contractors or firms.		
3	a 84	a .16⅔
3	a 84	a .18¾
1	a 84	a .20
7	a 84	a .20⅔
31	a 84	a .22½
9	a 70	a .25
2	a 84	a .25
30	59	.25½
12	a 84	a .27
53	60	.27½
1	55	.29½
1	a 70	a .30
1	60	.32½
3	a 70	a .33
3	a 56	a .37½
1	54	.39
2	a 70	a .41
1	a 70	a .49¼
Engineers, steam roller:		
Public, by city or State.		
3	48	.37½
Public, by contractors.		
12	60	.30
2	60	.35
Engine hostlers:		
Public, by city or State.		
5	48	.50
Private, by contractors or firms.		
5	a 70	a .16⅔
2	a 84	a .18¾
2	a 70	a .20
50	a 84	a .20⅔
1	a 84	a .23
9	a 84	a .25
9	a 84	a .29¼
Engine wipers:		
Public, by city or State.		
10	48	.28¼
Private, by contractors or firms.		
14	a 84	a .12½
42	a 70	a .15
5	55	.16¼
1	a 70	a .17½
Firemen:		
Public, by city or State.		
1	48	.25
11	48	.28
16	50	.30
12	48	.31½
8	48	.33½
Public, by contractors.		
4	60	.17½
Firemen—Conc'd.		
Private, by contractors or firms.		
28	a 84	a $0.16⅔
5	a 70	a .17½
11	a 63	a .17⅔
7	a 84	a .18¾
2	a 63	a .19½
4	a 70	a .20
12	a 70	a .22½
Firemen, locomotive:		
Public, by city or State.		
3	48	.28
18	48	.29
Private, by contractors or firms.		
52	a 70	a .17½
476	a 63	a .22½
Foremen, blacksmiths:		
Public, by city or State.		
1	48	.43¾
Private, by contractors or firms.		
7	60	.30
2	60	.32
2	55	.37½
Foremen, elevator constructors:		
Public, by contractors.		
15	48	.43¾
1	48	.47
1	48	.50
Private, by contractors or firms.		
11	48	.43¾
Foremen, iron workers, assistant:		
Public, by contractors.		
6	48	.37½
Private, by contractors or firms.		
6	48	.37½
Foremen, laborers:		
Public, by city or State.		
5	(b)	.35
Public, by contractors.		
41	60	.30
Foremen, linemen:		
Public, by city or State.		
1	48	.40
Public, by contractors.		
2	48	.43¾
Foremen, machinists:		
Public, by city or State.		
1	48	.62½
Public, by contractors.		
1	53	.36¾
Private, by contractors or firms.		
9	60	.35
1	60	.40¾
Foremen, steam fitters:		
Public, by contractors.		
4	48	.47
4	48	.50
Foremen, steam fitters—Conc'd.		
Private, by contractors or firms.		
4	48	$0.47
6	48	.50
Foremen, sweepers, street:		
Public, by city or State.		
3	48	.26
2	48	.31¼
58	48	.40
Public, by contractors.		
60	72	.20¾
Galvanized and sheet iron workers:		
Public, by city or State.		
2	48	.31
4	48	.41
21	48	.44
Public, by contractors.		
56	48	.43¾
Private, by contractors or firms.		
8	60	.25
8	55	.32½
1	55	.37½
55	48	.43¾
Galvanized and sheet iron workers' helpers:		
Public, by contractors.		
1	48	.18¾
1	48	.22
2	48	.25
Private, by contractors or firms.		
3	60	.15
7	55	.24½
5	48	.25
Gardeners:		
Public, by city or State.		
50	48	.25
Private, by contractors or firms.		
225	60	.16¾
Gatemen, street railway:		
Public, by city or State.		
34	48	.31¼
Private, by contractors or firms.		
132	a 84	a .10½
67	a 70	a .12½
409	a 84	a .12½
71	a 84	a .13½
6	a 84	a .14½
Harness makers:		
Public, by city or State.		
1	48	.31½
2	48	.32
13	48	.37½
Private, by contractors or firms.		
12	60	.22½
Hod carriers:		
Public, by city or State.		
1	48	.34

a Work 7 days per week.

b Not reported.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Hod carriers—Conc'd.		
Public, by contractors.		
5	48	$0.20
4	48	.25
150	48	.30
45	48	.31¼
Private, by contractors or firms.		
111	48	.30
Holders-on:		
Public, by city or State.		
7	48	.28
Public, by contractors.		
25	48	.28¼
Private, by contractors or firms.		
12	54	.24½
65	48	.28½
35	48	.34½
Hostlers:		
Public, by city or State.		
1	a 70	a .19¾
19	48	.24
86	a 56	a .24¾
18	a 56	a .25
Public, by contractors.		
12	a 84	a .12½
12	a 84	a .14½
3	a 70	a .20
Private, by contractors or firms.		
491	a 70	a .17½
20	60	.22½
Iron workers, structural:		
Public, by contractors.		
46	48	.28¾
25	48	.30
7	60	.30
25	48	.31¼
10	48	.34½
47	48	.37½
24	48	.43¾
Private, by contractors or firms.		
43	48	.28¾
40	48	.30
10	60	.30
45	48	.31¼
25	48	.34½
45	48	.37½
35	48	.43¾
6	48	.47
Iron workers', structural, helpers:		
Public, by contractors.		
55	48	.25
25	60	.25
Private, by contractors or firms.		
50	48	.20
5	48	.25
25	60	.25
Joiners:		
Public, by city or State.		
2	48	.35
12	48	.38
65	48	.41
Joiners—Conc'd.		
Public, by contractors.		
3	60	$0.20
25	60	.22½
10	60	.25
Private, by contractors or firms.		
2	54	.36
10	54	.39
Laborers:		
Public, by city or State.		
1	48	.16
6	48	.19
261	48	.22
255	(b)	.23
1,175	48	.25
114	48	.26½
19	48	.28¼
4	48	.28¾
78	48	.31¼
11	48	.36
Public, by contractors.		
54	60	.12½
1	53	.14¼
35	48	.15
2,394	60	.15
588	59	.15¼
21	48	.15¾
1	53	.17
1,956	60	.17½
7	48	.18¾
35	54	.19½
56	48	.22
22	48	.25
Private, by contractors or firms.		
10	a 84	a .10½
260	a 84	a .12½
74	a 84	a .14½
199	60	.15
497	a 70	a .15
828	59	.15¼
75	60	.16
25	55	.16¼
25	60	.16¾
42	a 84	a .16¾
107	a 70	a .17¾
656	60	.17½
372	a 70	a .17½
24	55	.19
309	54	.19½
48	48	.22
15	54	.22¼
1	a 70	a .22½
165	48	.25
5	a 70	a .25
1	a 70	a .29½
Laborers, building:		
Public, by city or State.		
1	48	.28¼
6	48	.31¼
Public, by contractors.		
18	48	.18¾
35	48	.25
3	48	.28¼
88	48	.30
4	48	.31¼
Laborers, building—Conc'd.		
Private, by contractors or firms.		
30	60	$0.20
5	48	.28¼
125	48	.30
7	48	.31¼
Linemen:		
Public, by city or State.		
2	48	.36
1	48	.38
1	48	.40
3	48	.44
Public, by contractors.		
15	48	.34½
Private, by contractors or firms.		
2	a 70	a .20
2	a 70	a .22½
1	a 70	a .33
Machinists:		
Public, by city or State.		
1	(b)	.35
5	48	.36
13	48	.37½
29	48	.38
44	48	.39
6	48	.43¾
48	48	.44
4	48	.50
Public, by contractors.		
4	60	.20
1	53	.25½
10	60	.27½
1	53	.28¼
8	60	.30
2	53	.31
6	a 56	a .31¼
1	53	.34
6	48	.34½
Private, by contractors or firms.		
1	a 70	a .20
40	60	.20½
3	55	.21¾
8	60	.22½
11	55	.24½
14	60	.25
5	55	.26¼
3	55	.27¼
33	60	.27½
93	55	.28¼
2	55	.29½
8	55	.30
76	60	.30
6	a 56	a .31¼
1	55	.31¾
2	55	.32¼
5	55	.33¾
2	60	.34½
1	a 70	a .38
2	a 70	a .41
16	48	.43¾
Machinists' helpers:		
Public, by city or State.		
1	48	.24
6	48	.25
16	48	.27
5	48	.29½
2	48	.31¼

a Work 7 days per week. b Not reported.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE.
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS.
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Machinists' helpers—Conc'd.		
Private, by contractors or firms.		
7	60	$0.17½
2	a 70	a .17½
39	55	.19
12	60	.20
Masons:		
Public, by city or State.		
4	48	.43¾
48	48	.50
8	(b)	.50
Public, by contractors.		
18	48	.40
123	48	.50
Private, by contractors or firms.		
5	60	.25
20	60	.35
139	48	.50
Masons, stone:		
Public, by city or State.		
1	48	.50
Public, by contractors.		
4	48	.40
125	48	.50
Private, by contractors or firms.		
12	48	.50
Masons' helpers:		
Public, by city or State.		
4	48	.28¾
Private, by contractors or firms.		
7	60	.15
14	60	.20
10	48	.25
Molders:		
Public, by city or State.		
9	48	.38
11	48	.41
6	48	.44
Private, by contractors or firms.		
1	55	.32¾
Oakum spinners:		
Public, by city or State.		
3	48	.25
Private, by contractors or firms.		
1	54	.33¼
Painters:		
Public, by city or State.		
6	48	.38
11	48	.41
22	48	.43¾
48	48	.44
Public, by contractors.		
25	54	.27½
12	48	.30
4	48	.31¼
20	54	.33¼
56	48	.37½
8	48	.43¾
Painters—Conc'd.		
Private, by contractors or firms.		
11	60	$0.20
9	60	.30
4	54	.40
244	48	.43¾
Painters, shop:		
Public, by city or State.		
3	48	.31¼
3	48	.36
4	48	.37½
3	48	.41
Private, by contractors or firms.		
1	60	.17½
1	60	.20
9	55	.21¾
32	60	.22½
40	55	.24½
10	55	.27½
1	55	.29¼
1	55	.30
Painters' helpers:		
Public, by city or State.		
2	48	.25
4	48	.28¼
3	48	.33
3	48	.34½
Public, by contractors.		
6	48	.25
Private, by contractors or firms.		
1	55	.08¼
7	60	.15
2	60	.16
51	55	.16½
Pavers, Belgian block:		
Public by city or State.		
47	48	.50
Public, by contractors.		
9	54	.44½
143	54	.50
Private, by contractors or firms.		
14	60	.22½
9	60	.25
53	54	.50
Pipe fitters:		
Public, by city or State.		
1	48	.25
3	48	.44
Private, by contractors or firms.		
1	55	.21¾
1	60	.24
2	55	.24½
1	60	.25
1	60	.26
1	55	.26¼
4	55	.27¼
1	60	.27½
1	55	.30
1	55	.32¼
Plasterers:		
Public, by contractors.		
268	44	$0.54½
Private, by contractors or firms.		
207	44	.54½
Plasterers' helpers:		
Public, by contractors.		
141	44	.30
20	48	.31¼
Private, by contractors or firms.		
156	44	.30
Plumbers:		
Public, by city or State.		
1	48	.37½
2	48	.41
1	48	.43¾
14	48	.44
7	48	.50
Public, by contractors.		
6	48	.40
141	48	.47
Private, by contractors or firms.		
1	56	.24
4	60	.27½
2	56	.29½
6	60	.30
1	55	.31½
1	55	.32¾
5	55	.35½
1	55	.42
159	48	.47
Plumbers' helpers:		
Public, by city or State.		
2	48	.16
1	48	.22
3	48	.31¼
Public, by contractors.		
1	48	.08½
1	48	.10½
13	48	.12½
61	48	.15¾
Private, by contractors or firms.		
2	60	.10
8	60	.15
59	48	.15¾
3	56	.18¾
8	56	.24
Rammers, Belgian block:		
Public, by city or State.		
16	48	.37½
3	48	.38
Public, by contractors.		
64	54	.39
Private, by contractors or firms.		
15	60	.17½
22	54	.39

a Work 7 days per week. b Not reported.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Riggers:		
Public, by city or State.		
12	48	$0.31
4	48	.31¼
2	48	.35
10	48	.37½
2	48	.38
2	48	.43¾
3	48	.44
Public, by contractors.		
10	60	.17½
15	59	.20
39	60	.20
20	48	.25
29	48	.31¼
Private, by contractors or firms.		
24	60	.20
15	59	.20½
27	60	.22½
20	60	.25
66	48	.31¼
18	48	.37½
15	54	.39
Riggers' helpers:		
Public, by contractors.		
6	60	.17½
35	48	.22
Private, by contractors or firms.		
10	60	.17½
26	48	.22
Riveters:		
Public, by city or State.		
6	48	.32
18	48	.35
4	48	.37½
Public, by contractors.		
15	60	.25
10	48	.31¼
40	48	.34½
Private, by contractors or firms.		
1	55	.13¾
1	55	.16¼
7	55	.19
30	55	.21¾
2	55	.24½
25	60	.25
2	55	.27¼
2	55	.28¾
60	48	.31¼
52	48	.34½
Rivet heaters:		
Public, by contractors.		
5	60	.15
Private, by contractors or firms.		
4	54	.16¾
Rock men:		
Public, by city or State.		
6	48	.28¼
Public, by contractors.		
80	60	.17½
127	59	.18
25	60	.20
Rock men—Conc'd.		
Private, by contractors or firms.		
190	59	$0.18
10	60	.20
20	59	.20¼
Roofers, slate:		
Public, by city or State.		
1	48	.44
Private, by contractors or firms.		
8	48	.40¾
2	48	.43¾
Sawmill men:		
Public, by city or State.		
5	48	.28
Private, by contractors or firms.		
3	54	.22½
Shipsmiths:		
Public, by city or State.		
3	48	.41
11	48	.44
Private, by contractors or firms.		
21	54	.33¼
Shipsmiths' helpers:		
Public, by city or State.		
22	48	.28
Private, by contractors or firms.		
10	54	.22¼
Shipwrights:		
Public, by city or State.		
1	48	.37½
30	48	.41
Private, by contractors or firms.		
186	54	.36
Snow shovelers:		
Public, by city or State.		
2,300	48	.25
Public, by contractors.		
3,000	60	.12½
Spar makers:		
Public, by city or State.		
2	48	.44
Private, by contractors or firms.		
26	54	.39
Steam and gas fitters:		
Public, by city or State.		
3	48	.37½
1	48	.39
3	48	.44
Public, by contractors.		
12	48	.40
54	48	.43¾
Private, by contractors or firms.		
6	60	.27½
12	48	.37½
70	48	.43¾
Steam and gas fitters' helpers:		
Public, by contractors.		
18	48	$0.18¾
72	48	.25
Private, by contractors or firms.		
80	48	.25
Stokers:		
Public, by city or State.		
1	48	.31¼
3	a 56	a .31¼
Private, by contractors or firms.		
126	a 84	a .25
Stonecutters:		
Public, by city or State.		
8	48	.50
Public, by contractors.		
30	48	.43¾
Sweepers, street:		
Public, by city or State.		
28	48	.23
307	48	.24
1,154	48	.28¾
Public, by contractors.		
728	72	.10½
Private, by contractors or firms.		
2	a 70	a .15
10	55	.16¼
Switchmen:		
Public, by city or State.		
29	48	.37½
Private, by contractors or firms.		
157	a 70	a .17½
1	a 70	a .20
53	a 70	a .21
12	a 70	a .21½
1	a 70	a .22½
81	a 70	a .24¾
Telegraph operators:		
Public, by city or State.		
7	a 56	a .51½
Private, by contractors or firms.		
3	a 70	a .17½
31	a 84	a .18¼
2	a 70	a .20
Ticket agents:		
Public, by city or State.		
36	48	.37½
Private, by contractors or firms.		
40	a 70	a .12½
13	a 84	a .14¾
201	a 84	a .16¾
19	a 70	a .17½
127	a 84	a .18¾

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Concluded.

Number of employees.	Hours of work per week.	Wages per hour.
Timekeepers:		
Public, by city or State.		
1	48	$0.43¾
Public, by contractors.		
10	60	.20
8	54	.22½
5	60	.22½
4	60	.25
Private, by contractors or firms.		
3	60	.22½
3	a 70	a .25
7	a 70	a .30
Tinsmiths:		
Public, by city or State.		
1	48	.37½
1	48	.38
Private, by contractors or firms.		
1	55	.21¾
1	60	.25
3	55	.26¼
3	55	.28¼
Track men:		
Public, by city or State.		
4	48	.50
Private, by contractors or firms.		
1	a 70	a .15
17	a 70	a .17½
204	a 70	a .20
Track men—Conc'd.		
Private, by contractors or firms—Conc'd.		
14	a 70	a $0.22½
3	a 70	a .23
5	a 70	a .24¾
1	a 70	a .26½
1	a 70	a .29½
Train dispatchers:		
Public, by city or State.		
6	48	.43¾
Private, by contractors or firms.		
2	a 84	a .20½
2	a 84	a .22
23	a 84	a .24¾
Watchmen:		
Public, by city or State.		
3	(b)	.16¾
5	(b)	.18¾
5	(b)	.21¼
5	48	.28
2	48	.29
1	48	.30
3	48	.31
Private, by contractors or firms.		
5	a 84	a .12½
6	a 84	a .14½
1	a 70	a .15
Watchmen—Conc'd.		
Private, by contractors or firms—Conc'd.		
2	a 84	a $0.16¾
1	a 70	a .20
1	55	.21¾
Wire men:		
Public, by contractors.		
6	a 56	a .31¼
49	48	.37½
Private, by contractors or firms.		
6	a 56	a .31¼
20	48	.37½
Wire men's helpers:		
Public, by contractors.		
15	48	.22
15	48	.25
Private, by contractors or firms.		
10	48	.25
Woodworkers:		
Public, by city or State.		
1	48	.37½
Private, by contractors or firms.		
30	60	.22½

PHILADELPHIA.

Number of employees.	Hours of work per week.	Wages per hour.
Asphalt layers:		
Public, by contractors.		
45	60	.17½
Private, by contractors or firms.		
14	60	.17½
Asphalt mixers:		
Public, by contractors.		
15	60	.15
Private, by contractors or firms.		
3	60	.15
Blacksmiths:		
Public, by city or State.		
2	54	.27¾
14	60	.30
10	54	.33¼
Public, by contractors.		
2	60	.22½
141	60	.27½
4	60	.30
2	54	.30½
Private, by contractors or firms.		
8	60	.20
12	60	.20½
1	60	.21¾
27	60	.22½
4	60	.25
138	60	.27½
4	60	.30
2	54	.30½
Blacksmiths' helpers:		
Public, by city or State.		
2	54	.19½
16	60	.22
7	54	.22½
2	54	.25
Public, by contractors.		
2	60	.15
3	60	.17½
6	54	.18½
Private, by contractors or firms.		
13	60	.14
29	60	.15
4	60	.17
6	54	.18¾
Boiler makers:		
Public, by contractors.		
147	60	.25
Private, by contractors or firms.		
147	60	.25
Bricklayers:		
Public, by city or State.		
18	50	.48½
Public, by contractors.		
4	60	.25
15	50	.43½
28	54	.45
120	50	.48½
Bricklayers—Conc'd.		
Private, by contractors or firms.		
59	50	.45
145	50	.48½
Bricklayers, sewer:		
Public, by contractors.		
91	54	.50
15	60	.50
84	54	.55
20	54	.55½
45	54	.61
Private, by contractors or firms.		
25	54	.50
Bricklayers' helpers:		
Public, by city or State.		
6	54	.24½
Public, by contractors.		
9	50	.18¾
Calkers, iron:		
Public, by city or State.		
30	54	.25
140	54	.27¾
Public, by contractors.		
5	54	.22½
19	60	.22½
9	54	25
Private, by contractors or firms.		
5	60	.22½
2	60	.24
3	60	.25

a Work 7 days per week. b Not reported.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

PHILADELPHIA—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Carpenters:		
Public, by city or State.		
14	50	$0.30
43	54	.33⅓
Public, by contractors.		
9	54	.25
33	60	.25
26	54	.27½
20	54	.28
170	54	.30
214	60	.30
10	50	.32½
8	48	.33⅓
8	48	.34½
Private, by contractors or firms.		
40	60	.20
52	60	.22½
116	60	.24
196	54	.30
214	60	.30
180	54	.30½
10	50	.32½
150	50	.33
52	54	.35
Carpenters' helpers:		
Public, by city or State.		
3	54	.19½
Public, by contractors.		
8	60	.17½
2	48	.18½
Private, by contractors or firms.		
5	54	.16⅔
Cement mixers:		
Public, by contractors.		
30	60	.15
Private, by contractors or firms.		
50	60	.15
Coal handlers:		
Public, by contractors.		
20	a 70	a .17½
Private, by contractors or firms.		
2	a 84	a .14⅔
31	a 56	a .18¾
Coppersmiths:		
Public, by contractors.		
30	60	.30
Private, by contractors or firms.		
30	60	.30
Cornice workers:		
Public, by contractors:		
10	54	.27⅔
Private, by contractors or firms.		
6	54	.27¾
Dock builders:		
Public, by contractors.		
15	60	.22½
3	60	.25
Private, by contractors or firms.		
325	60	.22½
100	60	.25
Draftsmen:		
Public, by contractors.		
88	60	$0.38
Private, by contractors or firms.		
88	60	.38
Drillers, iron:		
Public, by contractors.		
91	60	.17½
Private, by contractors or firms.		
91	60	.17½
Drillers, stone:		
Public, by contractors.		
64	60	.27½
Private, by contractors or firms.		
6	60	.27½
Drillers', stone, helpers:		
Public, by contractors.		
3	60	.16⅔
32	60	.17½
Private, by contractors or firms.		
4	60	.17½
Drips, gas works:		
Public, by city or State.		
7	a 84	a .18¼
Public, by contractors.		
3	a 84	a .16¾
Drivers:		
Public, by city or State.		
22	60	.17½
20	a 84	a .18¾
18	a 70	a .20
26	54	.22½
Public, by contractors.		
30	60	.12½
246	60	.15
110	60	.16¾
Private, by contractors or firms.		
72	60	.15
20	60	.16⅔
3	60	.17½
Drivers with double team:		
Public, by city or State.		
2	54	.50
Public, by contractors.		
2	60	.40
105	60	.50
Drivers with single team:		
Public, by city or State.		
22	54	.27½
38	54	.33⅓
Public, by contractors.		
105	60	.27½
143	60	.30
Private, by contractors or firms.		
306	60	.30
Dynamo men:		
Public, by city or State.		
2	48	$0.31¼
Public, by contractors.		
20	60	.22½
10	a 70	a .25
Private, by contractors or firms.		
6	48	.22½
20	60	.22½
1	48	.25
10	a 70	a .25
18	a 56	a .26¾
10	a 56	a .28¾
4	a 56	a .30¾
Electricians:		
Public, by contractors.		
48	60	.25
Private, by contractors or firms.		
12	60	.18
48	60	.25
Engineers, chief:		
Public, by contractors.		
1	72	.29¼
Private, by contractors or firms.		
1	72	.29¼
Engineers, dynamo:		
Public, by contractors.		
1	a 84	a .23¾
Private, by contractors or firms.		
1	a 84	a 23¾
Engineers, dynamo, assistant:		
Public, by contractors.		
1	a 84	a .16¾
Private, by contractors or firms.		
1	a 84	a .16¾
Engineers, hoisting:		
Public, by city or State.		
6	48	.37½
Public, by contractors.		
4	60	.22½
11	50	.24
17	60	.25
4	54	.27½
1	60	.30
Private, by contractors or firms.		
4	50	.24
1	54	.25
10	50	.27
5	54	.27½
Engineers, stationary:		
Public, by city or State.		
4	a 84	a .21
7	a 84	a .22½
5	a 84	a .23
2	a 84	a .25½
1	a 84	a .27
2	a 84	a .27½
1	54	.33⅓

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

PHILADELPHIA—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Engineers, stationary—Conc'd.		
Public, by contractors.		
20	60	$0.25
4	*a* 70	*a* .25
2	*a* 70	*a* .30
Private, by contractors or firms.		
10	60	.21¼
11	60	.22½
4	60	.25
2	*a* 56	*a* .27½
12	*a* 56	*a* .28½
15	*a* 56	*a* .31¼
6	*a* 56	*a* .34½
1	*a* 56	*a* .35
Engineers, stationary, assistant:		
Public, by contractors.		
2	*a* 84	*a* .16¾
Private, by contractors or firms.		
2	*a* 84	*a* .16¾
Engineers, steam roller:		
Public, by contractors.		
10	60	.25
6	60	.35
Private, by contractors or firms.		
2	60	.25
Fasteners, shipbuilding:		
Public, by contractors.		
23	60	.17½
Private, by contractors or firms.		
23	60	.17½
Firemen:		
Public, by city or State.		
51	*a* 84	*a* .19½
28	*a* 84	*a* .23
19	48	.28¾
Public, by contractors.		
2	*a* 84	*a* .16¾
7	*a* 70	*a* .22½
Private, by contractors or firms.		
16	60	.15¾
2	*a* 84	*a* .16¾
39	*a* 56	*a* .25
Fitters (iron setters), shipbuilding:		
Public, by contractors.		
67	60	.25
Private, by contractors or firms.		
67	60	.25
Foremen, blacksmiths:		
Public, by city or State.		
2	60	.35
2	60	.37½
Public, by contractors.		
2	60	.30
Private, by contractors or firms.		
1	60	.27½
6	60	.30
Foremen, bricklayers:		
Public, by city or State.		
4	54	$0.39
1	50	.60
Public, by contractors.		
1	60	.45
Private, by contractors or firms.		
1	60	.45
1	50	.54
3	50	.57
1	50	.62½
7	50	.63
Foremen, carpenters:		
Public, by city or State.		
1	54	.35½
2	54	.39
1	50	.42
Public, by contractors.		
1	48	.37½
3	54	.39
Private, by contractors or firms.		
12	54	.39
Foremen, dock builders:		
Public, by contractors.		
4	60	.30
Private, by contractors or firms.		
20	60	.35
Foremen, iron workers, structural:		
Public, by contractors.		
2	54	.33¼
Private, by contractors or firms.		
1	54	.33¼
Foremen, laborers:		
Public, by city or State.		
1	54	.19½
1	54	.29¾
1	50	.39
Public, by contractors.		
16	60	.20
85	60	.25
3	60	.27½
25	60	.30
5	60	.35
Private, by contractors or firms.		
7	60	.20
20	60	.25
3	60	.30
Foremen, linemen:		
Public, by contractors.		
1	60	.29¼
Private, by contractors or firms.		
1	60	.29¼
Foremen, machinists:		
Public, by city or State.		
1	54	.42½
1	54	.44½
1	54	.53½
Foremen, machinists—Conc'd.		
Private, by contractors or firms.		
14	60	$0.30
2	60	.35
Foremen, painters:		
Public, by city or State.		
1	54	.32
1	54	.36¾
1	54	.41¼
1	50	.42
Public, by contractors.		
9	54	.39
Private, by contractors or firms.		
13	54	.39
3	54	.44½
Foremen, plasterers:		
Public, by contractors.		
8	48	.50
Private, by contractors or firms.		
9	48	.50
Foremen, purifiers, gas works:		
Public, by city or State.		
5	*a* 70	*a* .27½
1	*a* 70	*a* .32½
Public, by contractors.		
2	60	.20
Foremen, stokers:		
Public, by city or State.		
1	*a* 84	*a* .27
Private, by contractors or firms.		
2	*a* 84	*a* .22
Galvanized and sheet iron workers:		
Public, by contractors.		
150	60	.22½
18	54	.27¾
10	54	.30
Private, by contractors or firms.		
150	60	.22½
7	54	.27¾
12	54	.30
10	54	.30½
Gardeners:		
Public, by city or State.		
1	54	.22¾
6	54	.25½
8	54	.27¾
1	54	.29¾
1	54	.32
Private, by contractors or firms.		
5	60	.15
4	60	.16¾
3	60	.20
1	60	.23¼
1	60	.25
Gardeners' helpers:		
Public, by city or State.		
1	54	.22¾

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

PHILADELPHIA—Continued.

Number of employees.	Hours of work per week.	Wages per hour.
Gardeners' helpers—Conc'd.		
Private, by contractors or firms.		
6	60	$0.12½
5	60	.15
Granite cutters:		
Public, by contractors.		
39	54	.39
Private, by contractors or firms.		
36	54	.39
Hod carriers:		
Public, by city or State.		
14	54	.24
3	50	.30
Public by contractors.		
20	60	.17½
13	50	.27
7	54	.30
40	48	.31½
41	50	.32½
Private, by contractors or firms.		
20	60	.17½
6	50	.24
16	50	.27
49	50	.30
45	45	.31½
40	50	.32½
Inspectors, electric lighting:		
Public, by city or State.		
8	60	.37½
Public, by contractors.		
10	a 70	a .20
2	a 70	a .22½
Private, by contractors or firms.		
10	a 70	a .20
2	a 70	a .22½
Iron workers:		
Public, by contractors		
59	60	.20
Private, by contractors or firms.		
59	60	.20
Iron workers, structural:		
Public, by contractors.		
20	54	.22½
Private, by contractors or firms.		
7	54	.22½
Joiners:		
Public, by contractors.		
68	60	.27½
Private, by contractors or firms.		
68	60	.27½
Laborers:		
Public, by city or State.		
143	54	.16½
166	60	.17½
108	a 70	a .17½
763	54	.19½
2	a 70	a .20
Laborers—Conc'd.		
Public, by contractors.		
3,549	60	$0.12½
65	60	.13
75	60	.13½
15	60	.14
985	60	.15
7	54	.16½
30	60	.17½
2	60	.20
2	48	.25
Private, by contractors or firms.		
45	60	.12
64	60	.12½
313	60	.13
487	60	.13½
596	60	.15
2	54	.16½
4	54	.19½
7	60	.20
9	54	.22½
Laborers, building:		
Public, by city or State.		
111	50	.21
9	50	.24
Public, by contractors.		
58	60	.15
2	48	.17½
20	50	.18
25	54	.19½
Private, by contractors or firms.		
35	60	.15
85	54	.16½
12	60	.17½
13	50	.18
8	54	.19½
22	50	.21
Linemen:		
Public, by city or State.		
8	60	.25
8	60	.27½
Public, by contractors.		
8	60	.25
Private, by contractors or firms.		
59	60	.25
Machinists:		
Public, by city or State.		
2	54	.27½
1	60	.30
5	54	.30½
1	60	.32½
34	54	.33½
Public, by contractors.		
565	60	.25
20	54	.27½
4	60	.30
Private, by contractors or firms.		
301	60	.20
5	60	.22
41	60	.22½
567	60	.25
20	54	.27½
Machinists' helpers:		
Public, by city or State.		
6	54	$0.22½
5	54	.25
1	60	.25
Private, by contractors or firms.		
11	60	.15
23	60	.17½
Masons, stone:		
Public, by contractors.		
25	54	.30
15	54	.39
10	50	.42
Private, by contractors or firms.		
40	54	.33½
35	50	.45
Meter inspectors, gas works:		
Public, by city or State.		
46	48	.32½
Private, by contractors or firms.		
4	60	.23½
Millwrights:		
Public, by contractors.		
18	54	.29½
Private, by contractors or firms.		
18	54	.29½
Molders:		
Public, by contractors.		
203	60	.20
Private, by contractors or firms.		
203	60	.20
50	60	.25
10	60	.27
Oilers:		
Public, by city or State.		
30	a 84	a .18½
Private, by contractors or firms.		
8	48	.22½
Painters:		
Public, by city or State.		
2	54	.22½
25	54	.27½
21	50	.30
6	54	.33½
Public, by contractors.		
5	54	.28
35	48	.30
77	54	.30
100	60	.30
20	54	.30½
Private, by contractors or firms.		
419	54	.30
100	60	.30
11	54	.30½
Pattern makers:		
Public, by city or State.		
3	54	.33½

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Conc'd.

PHILADELPHIA—Concluded.

Number of employees.	Hours of work per week.	Wages per hour.
Pattern makers—Conc'd.		
Public, by contractors.		
68	60	$0.30
1	54	.30½
Private, by contractors or firms.		
18	60	.24¾
7	60	.25
7	60	.27
68	60	.30
1	54	.30½
Pavers, Belgian block:		
Public, by contractors.		
15	60	.35
56	54	.44½
Private, by contractors or firms.		
25	60	.25
20	54	.50
Pavers, cobblestone:		
Public, by contractors.		
15	60	.35
15	54	.44½
Private, by contractors or firms.		
20	60	.25
43	54	.50
Pile drivers:		
Public, by contractors.		
75	60	.22½
Private, by contractors or firms.		
30	60	.22½
20	60	.25
10	60	.27½
Plasterers:		
Public, by contractors.		
12	54	.30½
80	48	.40
Private by contractors or firms.		
10	54	.39
103	48	.40
Plumbers:		
Public, by city or State.		
10	54	.30½
6	54	.33¼
7	54	.42
Public, by contractors.		
25	54	.33¼
12	48	.37½
4	48	.43¾
Private, by contractors or firms.		
1	54	.27¾
91	54	.33¼
17	54	.39
Plumbers' helpers:		
Public, by city or State.		
3	54	.25
7	54	.27¾
Public, by contractors.		
10	54	.16¾
Pump men:		
Public, by city or State.		
14	*a* 70	*a* .22
6	48	.34½
Pump men—Conc'd.		
Public, by contractors.		
4	*a* 70	*a* $0.22½
Purifiers, gas works:		
Public, by city or State.		
69	*a* 70	*a* .25
Public, by contractors.		
12	60	.17½
Private, by contractors or firms.		
1	*a* 70	*a* .19
Rammers, Belgian block and cobblestone:		
Public, by contractors.		
10	60	.15
10	54	.30½
Private, by contractors or firms.		
17	60	.20
30	54	.33¼
Riggers:		
Public, by contractors.		
67	60	.18½
4	50	.24
2	50	.30
3	54	.33¼
Private, by contractors or firms.		
67	60	.18½
10	54	.27¾
25	50	.30
2	54	.33¼
4	50	.48
Riveters:		
Public, by contractors.		
199	60	.20
Private, by contractors or firms.		
199	60	.20
Steam and gas fitters:		
Public, by city or State.		
23	54	.27¾
4	50	.36
Public, by contractors.		
274	60	.25
5	60	.30
3	48	.31¼
29	54	.33¼
4	48	.37½
Private, by contractors or firms		
8	60	.20
1	60	.23¼
274	60	.25
3	60	.26¾
13	60	.27½
5	54	.27¾
3	54	.30½
80	54	.33¼
Steam and gas fitters' helpers:		
Public, by city or State.		
14	54	.22¼
15	54	.24
1	54	.24½
Public, by contractors.		
10	54	.16¾
3	48	.18¾
Steam and gas fitters' helpers—Conc'd.		
Private, by contractors or firms.		
1	60	$0.15
6	54	.16¾
1	60	.19¼
Stokers:		
Public, by city or State.		
212	*a* 84	*a* .23
Private, by contractors or firms.		
8	*a* 84	*a* .18
Stonecutters:		
Public, by city or State.		
5	54	.33¼
3	50	.42
Public, by contractors.		
25	54	.30
50	50	.42
14	50	.43
Private, by contractors or firms.		
10	54	.36
44	50	.43
Stonecutters' helpers:		
Public, by city or State.		
3	50	.24
Public, by contractors.		
50	50	.22
Stone setters:		
Public, by contractors.		
6	50	.48½
Private, by contractors or firms.		
25	50	.45
2	50	.48½
Trimmers, electric lighting:		
Public, by city or State.		
10	60	.37½
Public, by contractors.		
35	*a* 70	*a* .20
Private, by contractors or firms.		
35	*a* 70	*a* .20
Watchmen:		
Public, by city or State.		
12	*a* 84	*a* .16¾
2	*a* 84	*a* .18
2	*a* 84	*a* .20¾
Public, by contractor		
3	*a* 84	*a* .10¾
4	*a* 70	*a* .17½
32	60	.18
Private, by contractors or firms.		
15	60	.12
32	60	.18
Weighers, gas works:		
Public, by city or State.		
4	*a* 70	*a* .22
Public, by contractors.		
2	*a* 70	*a* .20

a Work 7 days per week.

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS.

BALTIMORE.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contractors or firms.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
Asphalt layers				$0.20	$0.20	$0.20	$0.20	$0.20	$0.20
Asphalt mixers				.15	.15	.15	.15	.15	.15
Blacksmiths	$0.30½	$0.22½	$0.25	.26	.17½	.23	.26	.17½	.21½
Blacksmiths' helpers	.22½	.22½	.22½	.20	.13	.15	.16½	.13½	.14½
Boiler makers				.22½	.22½	.22½	.23½	.22½	.22½
Bricklayers	.39½	.22½	.39	.37½	.33½	.34	.39½	.33½	.34½
Carpenters	.33½	.27½	.32½	.31½	.22½	.25½	.28	.18	.26½
Cement finishers				.35	.25	.31½	.35	.35	.35
Cement mixers				.12½	.12½	.12½	.12½	.12½	.12½
Chandelier fitters				.20	.20	.20	.20	.20	.20
Chandelier makers				.25	.25	.25	.25	.25	.25
Coal handlers				.15	.15	.15	.15	.15	.15
Cornice workers				.27½	.22½	.25	.27½	.22½	.25
Curbstone setters				.30	.30	.30	.30	.30	.30
Curbstone setters' helpers				.15	.15	.15	.15	.15	.15
Draftsmen				.44½	.33½	.44	.44½	.33½	.44
Drivers				.15	.07	.09½	.12½	.12½	.12½
Drivers with single team	.33½	.25	.27½	.20	.20	.20	.22½	.20	.20½
Dynamo men				.22½	.17½	.20	.22½	.17½	.20
Dynamo men's helpers				.12½	.12½	.12½	.12½	.12½	.12½
Engine cleaners				.14½	.12½	.13	.14½	.12½	.13
Engineers, chief				.28½	.28½	.28½	.28½	.28½	.28½
Engineers, hoisting	.30½	.30½	.30½	.22½	.20	.22½	.28½	.28½	.28½
Engineers, stationary				.25	.20	.22	.25	.20	.21½
Engineers, stationary, assistant				.18½	.18½	.18½	.18½	.18½	.18½
Engineers, steam roller				.40	.40	.40	.40	.40	.40
Firemen				.20	.15	.19	.20	.15	.19
Foremen, carpenters				.33½	.27½	.28½	.41½	.30½	.34½
Foremen, cornice workers				.33½	.33½	.33½	.33½	.33½	.33½
Foremen, electric lighting				.33	.33	.33	.33	.33	.33
Foremen, electric lighting, assistant				.21½	.21½	.21½	.21½	.21½	.21½
Foremen, laborers	.29½	.22½	.26	.35	.20	.27½	.25	.17½	.20
Foremen, linemen				.28½	.28½	.28½	.28½	.28½	.28½
Galvanized and sheet iron workers				.25	.22½	.22½	.25	.22½	.23
Gardeners	.21½	.18½	.19				.20	.15	.16
Gas-holder riveters				.27½	.27½	.27½	.27½	.27½	.27½
Granite cutters				.40½	.40½	.40½	.40½	.40½	.40½
Ground men, electric lighting				.15	.12½	.14	.15	.12½	.14
Hod carriers				.27½	.22½	.26	.28½	.22½	.25½
Hostlers				.12½	.07½	.09½	.12½	.12½	.12½
Inspectors, electric lighting				.19½	.17½	.17½	.19½	.17½	.17½
Iron workers, ornamental				.24	.24	.24	.24	.24	.24
Iron workers', ornamental, helpers				.15	.15	.15	.15	.15	.15
Iron workers, structural				.25	.17½	.19½	.25	.17½	.19½
Iron workers', structural, helpers				.15	.15	.15	.15	.15	.15
Laborers	.22½	.18½	.18½	.15½	.11½	.12½	.16½	.11½	.13
Laborers, building				.15	.15	.15	.16½	.14	.15½
Linemen				.25	.21½	.24	.25	.20	.22½
Machinists	.36	.27½	.32½	.25	.15	.22	.22½	.16½	.21½
Machinists' helpers				.15	.15	.15	.15	.12	.14½
Masons, stone	.40½	.40½	.40½	.39	.30	.32½	.39	.33½	.36½
Molders				.27½	.22½	.25½	.27½	.22½	.25½
Molders' helpers				.12½	.12½	.12½	.12½	.12½	.12½
Oilers				.14½	.14½	.14½	.14½	.14½	.14½
Painters	.22½	.22½	.22½	.22½	.16½	.21½	.28½	.16½	.23½
Pattern makers	.27½	.27½	.27½	.30	.25	.28	.30	.25	.28
Pavers	.30½	.30½	.30½	.25	.25	.25			
Pavers, Belgian block	.51	.51	.51	.51	.39	.47½	.50	.22½	.31½
Pavers, cobblestone	.41½	.41½	.41½	.39½	.30	.35½	.39	.22½	.27½
Plumbers				.30½	.22½	.26½	.30½	.27½	.28
Rammers, Belgian block	.34	.34	.34	.39½	.19½	.35	.39	.15½	.19½
Rammers, cobblestone	.22½	.22½	.22½	.22½	.15	.21	.22½	.15½	.15½
Rammers, paving				.17½	.17½	.17½	.17½	.17½	.17½
Repairmen, electric lighting				.12½	.08½	.10½	.12½	.08½	.10½
Roofers, slate				.34	.34	.34	.34	.34	.34

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES, ETC.—Cont'd.

BALTIMORE—Concluded.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contracters or firms.		
	High-est.	Low-est.	Aver-age.	High-est.	Low-est.	Aver-age.	High-est.	Low-est.	Aver-age.
Steam and gas fitters				$0.27½	$0.27½	$0.27½	$0.27½	$0.27½	$0.27½
Stonecutters	$0.43¾	$0.43¾	$0.43¾	.39	.32½	.33½	.43	.40½	.42
Stone setters				.50	.50	.50	.40½	.40½	.40½
Tappers, waterworks	.22½	.22½	.22½				.16½	.16½	.16½
Tinsmiths				.20	.20	.20	.20	.20	.20
Tool sharpeners				.40½	.40½	.40½	.40½	.40½	.40½
Trimmers, electric lighting				.14½	.12½	.13½	.14½	.14½	.14½
Watchmen	.22½	.14	22	.11½	.11½	.11½	.11½	.11½	.11½
Wire men				.27½	.27½	.27½	.27½	.16½	.25½

BOSTON.

Blacksmiths	.41	.25	.34	.30	.22½	.26½	.29	.24	.26½
Blacksmiths' helpers	.32½	.22½	.29	.18½	.18½	.18½	.19	.16	.17
Boiler makers	.33½	.33½	.33½				.21	.20	.20½
Boiler makers' helpers	.27½	.27½	.27½				.18	.14	.15½
Bracers	.33½	.22½	.26½	.25	.20	.23½			
Bricklayers	.44	.41	.43	.42	.42	.42	.42	.35	.41
Bricklayers, sewer	.70	.55	.58½	.75	.44½	.66½	.70	.70	.70
Calkers, iron	.30½	.24½	.25	.25½	.22½	.23½			
Calkers, wood	.33½	.33½	.33½	.40½	.30½	.39	.40½	.40½	.40½
Carpenters	.45	.21½	.31½	.30	.20	.27½	.30	.24	.26½
Carpenters' helpers	.25	.22½	.23½	.20	.20	.20	.20	.18	.19½
Cement finishers				.44½	.39	.43½	.44½	.44½	.44½
Cement finishers' helpers				.28	.22½	.23½	.22½	.22½	.22½
Coal handlers	.23½	.22½	.22½				.18	.17½	.17½
Cooks	.18½	.18½	.18½	.21½	.21½	.21½	.18½	.18½	.18½
Draftsmen	.75	.33½	.48½				.42½	.24	.30½
Dredge crane men				.30½	.28½	.29½	.30½	.30½	.30½
Dredge runners				.34½	.28½	.31½	.34½	.34½	.34½
Drillers, stone	.25	.25	.25	.30	.17½	.25	.30	.30	.30
Drivers	.28	.19½	.22½	.31½	.14½	.17½	.31½	.17½	.21½
Drivers with double team	.50	.50	.50	.55½	.40	.49½			
Drivers with single team	.33½	.33½	.33½	.33½	.30	.33			
Dump men	.27½	.27½	.27½	.20	.20	.20			
Engineers, hoisting	.38	.34½	.36½	.34½	.22½	.25½	.34½	.34½	.34½
Engineers, stationary	.76	.21½	.32	.27½	.17½	.25½	.40	.20	.27
Firemen	.29	.16½	.24	.21½	.19½	.20	.22½	.18½	.21½
Foremen, blacksmiths				.32½	.32½	.32½	.40	.32	.34½
Foremen, bricklayers				.62½	.50	.55½	.55	.45	.51½
Foremen, carpenters	.44½	.44½	.44½	.39½	.30	.34½	.39½	.30	.34
Foremen, dredge runners				.50	.38½	.44½	.55½	.55½	.55½
Foremen, laborers	.60	.25	.34½	.54½	.20	.35½	.30	.16½	.26½
Foremen, machinists	.41	.41	.41	.32½	.32½	.32½	.32½	.32	.32
Foremen, masons	.62½	.62½	.62½				.42½	.42½	.42½
Foremen, painters				.37½	.32	.33½	.37½	.30½	.33½
Foremen, pavers				.55½	.44½	.51½	.44½	.44½	.44½
Foremen, track men				.61	.50	.55½	.61	.50	.54½
Gatemen	.23½	.22½	.23				.21½	.17½	.20
Glaziers				.27½	.27½	.27½	.27½	.27½	.27½
Harness makers	.44½	.27½	.34	.25	.25	.25	.26½	.24	.26½
Hod carriers				.25	.25	.25	.25	.23½	.24½
Horse feeders	.25	.25	.25				.15	.15	.15
Horseshoers	.36	.27½	.33½	.31½	.22½	.27			
Hostlers	.27½	.22½	.24½	.14½	.14½	.14½	.18½	.16½	.16½
Laborers	.39	.19	.22	.25	.12½	.15½	.22½	.15	.17½
Laborers, building				.25	.20	.24½	.25	.20	.24½
Lathers				.37½	.35½	.37	.37½	.37½	.37½
Machinists	.41	.27½	.34½	.23	.22½	.22½	.29	.22½	.26
Machinists' helpers	.27½	.24½	.25½				.22	.16	.19½
Masons	.50	.47	.49	.42	.42	.42	.42	.37½	.41½
Masons, stone	.47½	.42	.43½	.42	.30	.36½			
Masons' helpers	.36	.28½	.30½	.31	.25	.26½	.25	.25	.25
Miners	.25	.25	.25	.23	.22½	.23			
Oilers	.27½	.22½	.24				.22½	.20	.20½
Painters	.41½	.21½	.29	.31½	.30	.30	.31½	.21	.28½
Painters, decorative				.35	.35	.35	.35	.35	.35
Pattern makers	.41	.41	.41				.32	.29	.31½
Pavers				.50	.44½	.44½	.50	.37½	.40
Pipe layers	.33½	.24½	.27½	.23	.20	.22	.27½	.27½	.27½
Plasterers				.50	.43	.44½	.50	.43	.43½
Plasterers' helpers				.32	.32	.32	.32	.32	.32
Plumbers	.44	.33½	.34½	.56½	.47	.48	.56½	.28½	.46½
Plumbers' helpers				.12½	.12½	.12½	.16½	.12½	.12½

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES, ETC.—Cont'd.

BOSTON—Concluded.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contractors or firms		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
Rammers, paving				$0.22½	$0.22½	$0.22½	$0.25	$0.20	$0.20½
Riggers	$0.38	$0.22½	$0.28¾	.31½	.31½	.31½	.25	.25	.25
Rock men	.22½	.22½	.22½	.22½	.16⅔	.20⅔	.20	.17½	.19⅔
Spikers				.25	.25	.25	.25	.22½	.24
Sprinklers, street	.23½	.22½	.23	.18½	.16⅔	.17½	.19½	.19½	.19½
Stonecutters	.38	.27½	.34	.44	.35	.39½	.27½	.27½	.27½
Sweepers, street	.23½	.22½	.22¾				.17½	.17½	.17½
Timekeepers	.33½	.27½	.29½	.38½	.15	.25½	.27½	.27½	.27½
Tinsmiths	.33½	.33½	.33½				.29	.20	.23⅔
Track men				.27½	.27½	.27½	.27½	.22½	.24
Watchmen	.25	.20	.23½	.16½	.14½	.15½	.22½	.14½	.19½
Water boys	.12	.08½	.10½	.10½	.05½	.09½	.15	.07½	.10
Wheelwrights	.38	.33½	.35½	.37	.27½	.30½			
Wire men	.33½	.27½	.31½				.27½	.20	.24½

NEW YORK CITY.

Ash and garbage lifters	.28¾	.28¾	.28¾	.15¾	.15¾	.15¾			
Ash tenders	.33	.33	.33				.19	.14½	.15
Asphalt layers				.25	.20	.21½	.28½	.20	.25
Asphalt mixers				.22½	.22½	.22½	.25	.22½	.24½
Axmen	.43½	.24	.31				.27¾	.25	.27
Blacksmiths	.44	.31	.38	.40¾	.20	.33½	.47	.20½	.28½
Blacksmiths' helpers	.32¾	.25	.28¾	.28¾	.22¾	.25¾	.31½	.17½	.23½
Boiler makers	.41	.35	.38¾				.42	.24½	.29
Boiler makers' helpers	.27	.24	.26¾				.20	.17½	.18¾
Boiler setters				.50	.50	.50	.50	.50	.50
Boiler setters' helpers				.28½	.28½	.28½	.25	.25	.25
Bracers				.20	.20	.20	.20½	.20½	.20½
Brass finishers				.30	.30	.30	.30	.30	.30
Bricklayers	.50	.50	.50	.50	.40	.49	.50	.40	.49½
Calkers, iron	.35	.31	.32	.20½	.20½	.20½	.20½	.20	.20
Calkers, wood	.41	.38	.40¾	.22½	.22½	.22½	.36	.36	.36
Car cleaners	.26½	.26½	.26½				.19	.15	.15
Car couplers	.26½	.26½	.26½				.15	.12½	.12¾
Carpenters	.47	.37½	.44½	.43¾	.25	.41	.49½	.17½	.37½
Carpenters' helpers	.33	.25	.30¾	.30	.25	.28½	.30	.15	.28½
Cement mixers	.28½	.28½	.28½	.17½	.16¾	.17½	.25	.17½	.18¾
Cleaners	.31¾	.25	.25½				.20¾	.20¾	.20¾
Conductors	.34½	.34½	.34½				.23	.17½	.20¾
Coppersmiths	.41	.37½	.39½				.33½	.25	.27½
Coppersmiths' helpers	.28	.25	.27½				.27½	.27½	.27½
Curbstone setters				.50	.30	.32½	.33½	.33½	.33½
Curbstone setters' helpers				.15	.15	.15	.19½	.19½	.19½
Derrick men				.37½	.34½	.36	.34½	.34½	.34½
Derrick men's helpers				.31½	.31½	.31½	.31½	.31½	.31½
Divers	1.25	1.20	1.24½	.50	1.00	.85¾	1.00	1.00	1.00
Divers' tenders	.35	.35	.35	.25	.25	.25	.25	.25	.25
Dock builders	.39	.30	.30¾	.30	.20	.23	.25¾	.22½	.24½
Draftsmen	.63	.31½	.49¾	.33½	.27½	.31	.30	.30	.30
Drillers	.28	.24	.27¾	.25½	.25½	.25½	.25½	.25½	.25½
Drivers	.36	.24	.27½	.22½	.15¾	.18	.30	.17½	.20½
Drivers with double team	.56½	.43¾	.53½	.35	.35	.35			
Drivers with single team	.43¾	.28½	.37¾	.35	.27½	.29¾	.39	.35	.37
Drivers with team and truck	.75	.75	.75	.45	.45	.45			
Elevator constructors				.47	.31½	.39	.40¾	.37½	.39½
Elevator constructors' helpers				.34½	.28½	.29½	.31½	.28½	.29½
Engineers, hoisting				.37½	.31½	.31½	.31½	.27½	.30½
Engineers, locomotive	.50	.31	.45½	.30	.30	.30	.39	.30	.38½
Engineers, stationary	.60	.35	.40½	.35	.25	.26	.49½	.16¾	.26
Engineers, steam roller	.37½	.37½	.37½	.35	.30	.30½			
Engine hostlers	.50	.50	.50				.20½	.16¾	.22
Engine wipers	.28½	.28½	.28½				.17½	.12½	.14½
Firemen	.33½	.25	.30½	.17½	.17½	.17½	.22½	.16¾	.18½
Firemen, locomotive	.29	.28	.28¾				.22½	.17½	.21¾
Foremen, blacksmiths	.43¾	.43¾	.43¾				.37¾	.30	.31¾
Foremen, elevator constructors				.50	.43¾	.44½	.43¾	.43¾	.43¾
Foremen, iron workers, assistant				.37½	.37½	.37½	.37½	.37½	.37½
Foremen laborers	.35	.35	.35	.30	.30	.30			

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES, ETC.—Cont'd.

NEW YORK CITY—Concluded.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contractors or firms.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
Foremen, linemen	$0.40	$0.40	$0.40	$0.43¾	$0.43¾	$0.43¾			
Foremen, machinists	.62½	.62½	.62½	.36¾	.36¾	.36¾	$0.40¾	$0.35	$0.35½
Foremen, steam fitters				.50	.47	.48½	.50	.47	.48¾
Foremen, sweepers, street	.40	.26	.39	.20¾	.20¾	.20¾			
Galvanized and sheet iron workers	.44	.31	.42½	.43¾	.43¾	.43¾	.43¾	.25	.40½
Galvanized and sheet iron workers' helpers				.25	.18¾	.22¾	.25	.15	.22¾
Gardeners	.25	.25	.25				.16¾	.16¾	.16¾
Gatemen, street railway	.31¼	.31¼	.31¼				.14½	.10½	.12½
Harness makers	.37½	.31½	.36½				.22½	.22½	.22½
Hod carriers	.34	.34	.34	.31¼	.20	.30	.30	.30	.30
Holders-on	.28	.28	.28	.28¼	.28¼	.28¼	.34½	.24½	.29¾
Hostlers	.25	.19¾	.24¾	.20	.12½	.14¼	.22½	.17½	.17½
Iron workers, structural				.43¾	.28¼	.33¾	.47	.28¼	.34
Iron workers', structural, helpers				.25	.25	.25	.25	.20	.22
Joiners	.41	.35	.40½	.25	.20	.23	.39	.36	.38½
Laborers	.36	.16	.24¾	.25	.12½	.16	.29½	.10½	.16¾
Laborers, building	.31¼	.28¼	.30¾	.31¼	.18¾	.27½	.31¼	.20	.28¼
Linemen	.44	.36	.40¼	.34½	.34½	.34½	.33	.20	.23¼
Machinists	.50	.35	.40¾	.34½	.20	.29¼	.43¾	.20	.28¼
Machinists' helpers	.31¼	.24	.27¼				.20	.17½	.19
Masons	.50	.43¾	.49½	.50	.40	.48¾	.50	.25	.47½
Masons, stone	.50	.50	.50	.50	.40	.49¾	.50	.50	.50
Masons' helpers	.28¼	.28¼	.28¼				.25	.15	.20½
Molders	.44	.38	.40¾				.32¾	.32¾	.32¾
Oakum spinners	.25	.25	.25				.33¼	.33¼	.33¼
Painters	.44	.38	.43¼	.43¾	.27¾	.34¼	.43¾	.20	.42¼
Painters, shop	.41	.31¼	.36½				.30	.17½	.22¾
Painters' helpers	.34½	.25	.30½	.25	.25	.25	.16¼	.08¼	.16
Pavers, Belgian block	.50	.50	.50	.50	.44½	.49¾	.50	.22¾	.42
Pipe fitters	.44	.25	.39¼				.32¼	.21¾	.26½
Plasterers				.54½	.54½	.54½	.54½	.54½	.54¼
Plasterers' helpers				.31¼	.30	.30¼	.30	.30	.30
Plumbers	.50	.37½	.45¼	.47	.40	.46¾	.47	.24	.45¼
Plumbers' helpers	.31¼	.16	.24¾	.15¾	.08½	.15	.24	.10	.16½
Rammers, Belgian block	.38	.37½	.37½	.39	.39	.39	.39	.17½	.30¼
Riggers	.44	.31	.35¼	.31¼	.17½	.23½	.39	.20	.28¼
Riggers' helpers				.22	.17½	.21¼	.22	.17½	.20¾
Riveters	.37½	.32	.34¾	.34½	.25	.31¾	.34½	.13¼	.29
Rivet heaters				.15	.15	.15	.16¾	.16¾	.16¾
Rock men	.28¼	.28¼	.28¼	.20	.17½	.18	.20¼	.18	.18¼
Roofers, slate	.44	.44	.44				.43¾	.40¾	.41¼
Sawmill men	.28	.28	.28				.22¼	.22¼	.22¼
Shipsmiths	.44	.41	.43¼				.33¼	.33¼	.33¾
Shipsmiths' helpers	.28	.28	.28				.22¼	.22¼	.22¾
Shipwrights	.41	.37½	.41				.36	.36	.36
Snow shovelers	.25	.25	.25	.12½	.12½	.12½			
Spar makers	.44	.44	.44				.39	.39	.39
Steam and gas fitters	.44	.37½	.40½	.43¾	.40	.43	.43¾	.27½	.41¾
Steam and gas fitters' helpers				.25	.18¾	.23¾	.25	.25	.25
Stokers	.31¼	.31¼	.31¼				.25	.25	.25
Stonecutters	.50	.50	.50	.43¾	.43¾	.43¾			
Sweepers, street	.28¾	.23	.27¾	.10½	.10½	.10½	.16¼	.15	.16
Switchmen	.37½	.37½	.37½				.24¾	.17½	.20¼
Telegraph operators	.51¾	.51¾	.51¾				.20	.17½	.18¼
Ticket agents	.37½	.37½	.37½				.18¾	.12¼	.17
Timekeepers	.43¾	.43¾	.43¾	.25	.20	.21¾	.30	.22½	.27
Tinsmiths	.38	.37½	.37¾				.28¼	.21¼	.26¼
Track men	.50	.50	.50				.29½	.15	.20¼
Train dispatchers	.43¾	.43¾	.43¾				.24¾	.20¼	.24¼
Watchmen	.31	.16¾	.23¾				.21¾	.12½	.15
Wire men				.37½	.31¼	.36¾	.37½	.31¼	.36
Wire men's helpers				.25	.22	.23½	.25	.25	.25
Woodworkers	.37½	.37½	.37½				.22½	.22¼	.22¼

PHILADELPHIA.

Asphalt layers				.17½	.17½	.17½	.17½	.17½	.17½
Asphalt mixers				.15	.15	.15	.15	.15	.15
Blacksmiths	.33	.27¾	.31	.30½	.22½	.27½	.30½	.20	.26
Blacksmiths' helpers	.25	.19¾	.22	.18¾	.15	.17½	.18¾	.14	.15¼

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES, ETC.—Cont'd.

PHILADELPHIA—Continued.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contractors or firms.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
Boiler makers				$0.25	$0.25	$0.25	$0.25	$0.25	$0.25
Bricklayers	$0.48½	$0.48½	$0.48½	.48½	.25	.47	.48½	.45	.47½
Bricklayers, sewer				.61	.50	.54	.50	.50	.50
Bricklayers' helpers	.24½	.24½	.24½	.18¾	.18¾	.18¾			
Calkers, iron	.27¾	.25	.27¼	.25	.22½	.23¼	.25	.22½	.23½
Carpenters	.33¼	.30	.32½	.34½	.25	.29½	.35	.20	.29¼
Carpenters' helpers	.19½	.19½	.19½	.18¾	.17½	.17¾	.16¾	.16¾	.16¾
Cement mixers				.15	.15	.15	.15	.15	.15
Coal handlers				.17½	.17½	.17½	.18¾	.14¾	.18½
Coppersmiths				.30	.30	.30	.30	.30	.30
Cornice workers				.27¾	.27¾	.27¾	.27¾	.27¾	.27¾
Dock builders				.25	.22½	.23	.25	.22½	.23
Draftsmen				.38	.38	.38	.38	.38	.38
Drillers, iron				.17½	.17½	.17½	.17½	.17½	.17½
Drillers, stone				.27½	.27½	.27½	.27½	.27½	.27½
Drillers', stone, helpers				.17½	.16¾	.17½	.17½	.17½	.17½
Drips, gas works	.18¼	.18¼	.18¼	.16¾	.16¾	.16¾			
Drivers	.22¼	.17½	.19¾	.16¾	.12½	.15¼	.17½	.15	.15½
Drivers with double team	.50	.50	.50	.50	.40	.49¾			
Drivers with single team	.33¼	.27¾	.31¼	.30	.27½	.29	.30	.30	.30
Dynamo men	.31¼	.31¼	.31¼	.25	.22½	.23¼	.30¾	.22½	.25½
Electricians				.25	.25	.25	.25	.18	.23½
Engineers, chief				.29¼	.29¼	.29¼	.29¼	.29¼	.29¼
Engineers, dynamo				.23¾	.23¾	.23¾	.23¾	.23¾	.23¾
Engineers, dynamo, assistant				.16¾	.16¾	.16¾	.16¾	.16¾	.16¾
Engineers, hoisting	.37¾	.37¾	.37¾	.30	.22½	.25	.27¾	.24	.26¼
Engineers, stationary	.33¼	.21	.23¾	.30	25	.25½	.35	.21¼	.27½
Engineers, stationary, assistant				.16¾	.16¾	.16¾	.16¾	.16¾	.16¾
Engineers, steam roller				.35	.25	.28¾	.25	.25	.25
Fasteners, shipbuilding				.17½	.17½	.17½	.17½	.17½	.17½
Firemen	.28¼	.19½	.22¼	.22½	.16¾	.21¼	.25	.16¾	.22
Fitters (iron setters), shipbuilding				.25	.25	.25	.25	25	.25
Foremen, blacksmiths	.37½	.35	.36¼	.30	.30	.30	.30	.27½	.29½
Foremen, bricklayers	60	.39	.43¼	.45	.45	.45	.63	.45	.59½
Foremen, carpenters	.42	.35½	.39	.39	.37½	.38¾	.39	.39	.39
Foremen, dock builders				.30	.30	.30	.35	.35	.35
Foremen, iron workers, structural				.33¼	.33¼	.33¼	.33¼	.33¼	.33¼
Foremen, laborers	.39	.19½	.29½	.35	.20	.25¼	.30	.20	.24¼
Foremen, linemen				.29¼	.29¼	.29¼	.29¼	.29¼	.29¼
Foremen, machinists	.53¼	.42½	.46¾				.35	.30	.30¾
Foremen, painters	.42	.32	.38	.39	.39	.39	.44½	.39	.40
Foremen, plasterers				.50	.50	.50	.50	.50	.50
Foremen, purifiers, gas works	.32½	27½	28¼	.20	.20	.20			
Foremen, stokers	.27	.27	.27				.22	.22	.22
Galvanized and sheet iron workers				.30	.22½	.23½	.30½	.22½	.23¾
Gardeners	.32	.22¼	.27				25	.15	.18
Gardeners' helpers	.22¼	.22¼	.22¼				.15	.12½	.13¾
Granite cutters				.39	.39	.39	.39	.39	.39
Hod carriers	.30	.24	.25	.32½	.17½	.28¾	.32½	.17½	.29
Inspectors, electric lighting	.37¾	.37¾	.37¾	.22¼	.20	.20½	.22¼	.20	.20½
Iron workers				.20	.20	.20	.20	.20	.20
Iron workers, structural				.22¼	.22¼	.22¼	.22¼	.22¼	.22¼
Joiners				.27½	.27½	.27½	.27½	.27½	.27½
Laborers	.20	.16¾	.18¾	.25	.12½	.14	.22¼	.12	.14
Laborers, building	.24	.21	.21¼	.19½	.15	.16¾	.21	.15	.17¼
Linemen	.27¼	.25	.26¼	.25	.25	.25	.25	.25	.25
Machinists	.33¼	.27¾	.32½	.30	.25	.25¼	.27½	.20	.23¼
Machinists' helpers	.25	.22¼	.23¼				.17½	.15	.16¼
Masons, stone				.42	.30	35	.45	.33¼	.38¼
Meter inspectors, gas works	.33¼	.33¼	.33¼				.23¼	.23¼	.23¼
Millwrights				.29¾	.29¾	.29¾	.29¾	.29¾	.29¾
Molders				.20	.20	.20	.27	.20	.21¼
Oilers	.18¼	.18¼	.18¼				.22½	.22½	.22½
Painters	.33¼	.22¼	.29	.30½	.28	.30	.30½	.30	.30
Pattern makers	.33¼	.33¼	.33¼	.30½	.30	.30	.30½	.24¼	.28½
Pavers, Belgian block				.44½	.35	.43½	.50	.25	.38
Pavers, cobblestone				.44½	.35	.39½	.50	.23	.43
Pile drivers				.22½	.22½	.22½	.27½	.22½	.24¼

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES, ETC.—Conc'd.

PHILADELPHIA—Concluded.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contractors or firms.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
Plasterers				$0.40	$0.30½	$0.38¾	$0.40	$0.39	$0.40
Plumbers	$0.42	$0.30½	$0.34¾	.43¾	.33¼	.35½	.39	.27¾	.34
Plumbers' helpers	.27¾	.25	.27	.16¾	.16¾	.16¾			
Pump men	.34½	.22	.25¾	.22½	.22½	.22½			
Purifiers, gas works	.25	.25	.25	.17½	.17½	.17½	.19	.19	.19
Rammers, Belgian block and cobblestone				.30½	.15	.22¾	.33¼	.20	.28½
Riggers				.33¼	.18½	.19¾	.48	.18½	.23½
Riveters				.20	.20	.20	.20	.20	.20
Steam and gas fitters	.36	.27¾	.29	.37½	.25	.26	.33¼	.20	.26¾
Steam and gas fitters' helpers	.24½	.22½	.23¼	.18¾	.16¾	.17¼	.19¼	.15	.16¾
Stokers	.23	.23	.23				.18	.18	.18
Stonecutters	.42	.33¼	.36½	.43	.30	.38¾	.43	.36	.41¾
Stonecutters' helpers	.24	.24	.24	.22	.22	.22			
Stone setters				.48½	.48½	.48½	.48½	.45	.45¼
Trimmers, electric lighting	.37¾	.37¾	.37¾	.20	.20	.20	.20	.20	.20
Watchmen	.20¾	.16¾	.17½	.18	.10¾	.17½	.18	.12	.16
Weighers, gas works	.22	.22	.22	.20	.20	.20			

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

PENNSYLVANIA.

Annual Report of the Secretary of Internal Affairs of the Commonwealth of Pennsylvania. Vol. XXIII, 1895. Part III, Industrial Statistics. James M. Clark, Chief of Bureau. 256 pp.

This report treats of the following subjects: Black and tin plate, 47 pages; statistics of manufactures, 150 pages; silk manufacture, 22 pages; strikes and lockouts, 22 pages.

BLACK AND TIN PLATE.—This part of the report consists of a history of the tin-plate industry in general, an account of its development in recent years in the United States, a description, with illustrations, of the largest tin-plate establishment in Pennsylvania, and statistics showing the extent of tin-plate manufacture in the State.

There were in operation during 1895, in Pennsylvania, 10 black-plate works and 17 dipping works for which returns are shown. In the 17 dipping works 557 persons were employed. The average number of days in operation was 244 and the total amount of wages paid was $188,224.32. This makes an average of $337.92 per person for the 244 days, or $1.38 per day. The black-plate manufacturers employed 2,474 persons, who were paid $1,063,695.23 in wages during 229 days of operation. This makes an average per person for the 229 days of $429.95, or $1.87 per day. For the entire tin-plate industry in the State there was, therefore, a total of $1,251,919.55 paid out in earnings to 3,031 persons for an average time of 231¾ days, a per capita for skilled and unskilled laborers of $413.03 for the year, or $1.78 per day.

The following statement shows the number of black-plate works and dipping works in the various States in 1895:

NUMBER OF BLACK-PLATE AND DIPPING WORKS IN THE UNITED STATES IN 1895, BY STATES.

State.	Black-plate works.		Dipping works.	
	Plants.	Hot mills.	Plants.	Tinning sets.
Pennsylvania	11	64	19	a90
Ohio	9	39	6	23
Indiana	6	44	1	37
Maryland	3	10	1	16
Illinois	1	3	2	23
Missouri	1	7	.....	.....
Michigan	.....	.....	1	3
New York	1	4	1	8
Virginia	.....	.....	1	2
West Virginia	1	4	1	4

a One of the dipping works did not report the number of tinning sets.

STATISTICS OF MANUFACTURES.—The statistics relating to manufacturing in the State cover 51 industries, representing 381 establishments. The presentation consists of a series of seven tables, showing a comparison of figures, grouped by industries, for the same establishments for the years 1892, 1893, 1894, and 1895, under the following heads: Average number of days in operation; average number of persons employed; aggregate wages paid; average yearly earnings; average daily wages of employees; value of manufactured product; average annual product per employee.

The following statement summarizes the statistics of manufactures for the years considered:

STATISTICS OF MANUFACTURES FOR THE YEARS 1892 TO 1895.

Year.	Establishments considered.	Average persons employed.	Aggregate wages paid.	Average yearly earnings.	Value of product.
1892	381	140,850	$68,156,287	$483.89	$272,925,056
1893	381	125,611	57,402,683	456.99	227,491,310
1894	381	112,271	46,186,794	411.39	185,463,976
1895	381	130,925	57,383,199	438.29	225,720,416

In 1895, 36 of the 51 industries, representing 294 establishments, had increased days of operation over 1894. Eleven industries, representing 83 establishments, had a decrease, while 4 industries, representing 4 establishments, worked the same number of days. The average increase over 1894 for all persons employed was 16 days, and the average decrease, as compared with 1892, 9 days.

In 1895 there was a general increase in employment, the excess of the persons employed in the 381 establishments over 1894 being 18,654. Notwithstanding this increase, there were still 9,925 fewer persons employed in 1895 than in 1892. An analysis of the detail tables shows that 31 industries, representing 304 establishments, employed 123,436 persons in 1892 and 112,307 persons in 1895, a decrease of 11,129 in the number employed, and the remaining 20 industries, representing 77 establishments, employed 17,414 persons in 1892 and 18,618 in 1895, an increase of 1,204, leaving a net decrease in 1895 over 1892, as above stated, of 9,925 persons, or 7.04 per cent.

In 24 industries, representing 255 establishments and employing 102,233 persons, the average daily wages were lower in 1895 than in 1892; in the remaining 27 industries, representing 126 establishments and employing 28,692 persons, the wages had increased over those of 1892. The net average decrease per day, 1895 over 1892, was 11 cents.

As satisfactory returns of product were received from only 162 of the 381 establishments, a separate series of comparative tables is presented giving the product of these 162 establishments, the corresponding value, aggregate of wages, yearly earnings, and persons employed.

General statistics of iron and steel manufactures for the year 1895 are presented in a series of 67 tables, or one for each branch of the

industry, and a final table summarizing the data. The various branches considered comprise the production and manufacture of iron and steel, including pig metal. The tables show the average number of persons employed, number of days in operation, aggregate amount of wages paid, total product, and value of product for each of 1,528 establishments.

These establishments employed, in 1895, a total of 185,496 persons, receiving an aggregate of $88,586,570 in wages, or a per capita of $477.56. The average number of days in operation was 286, which makes an average daily wage of $1.67. The total value of the manufactured product was $336,415,068.

SILK MANUFACTURE.—This consists of a statistical presentation of the number of spindles and hand-power and Jacquard looms, and of persons employed, amount of wages paid, and value of product for each of the 65 silk manufacturing establishments in the State.

These establishments employed, in 1895, a total of 13,815 skilled and unskilled laborers, receiving a total of $4,082,292.08 in wages, or a per capita of $295.50 for 48 weeks of operation. Salaries of clerks, salesmen, officials, and members of the firm are not included in these figures. The gross value of the product during the year was $24,184,583.84.

STRIKES AND LOCKOUTS.—During the year 1895, 151 strikes occurred in Pennsylvania that came to the knowledge of the bureau. In these strikes 17,113 persons were actually engaged.

The following statement shows, by industries, the number of strikes and the number of persons engaged:

STRIKES AND PERSONS ENGAGED BY INDUSTRIES.

[Each strike in each establishment is considered separately, whether part of a general strike or not. So also when one establishment has several strikes it is regarded as so many separate establishments. Thus the number of strikes is made to equal the number of establishments.]

Industry.	Strikes.	Persons engaged.	Industry.	Strikes.	Persons engaged.
Coal mining	70	10,805	Cotton, worsted, and jeans	1	70
Carpet weaving	36	2,524	Cotton and silk goods	1	188
Boiler making	6	571	Cabinetmaking	1	25
Blast furnace	4	440	Worsted, woolen, and cotton goods	1	110
Pig-iron manufacturing	2	230	Cloaks and suits	1	25
Hosiery making	3	91	Cloth weaving	1	150
Woolen and worsted goods	4	191	Chenille weaving	1	121
Cigar making	3	447	Worsted goods	1	26
Woolen goods	2	123	Chenille and upholstery manufacturing	1	52
Cotton and woolen goods	2	275	Cooking utensils	1	19
Upholstery manufacturing	2	140	Brickmaking	1	175
Iron and steel works	1	64	Shoe manufacturing	1	15
Foundry and machine works	1	36	Drivers of milk wagons	1	20
Electric street railway	1	30			
Iron works	1	150			

Of the total number of strikes, 109 were inaugurated for an increase of wages, 19 against a reduction of wages, and the remaining 23 for various other causes. Ninety-eight strikes, or 64.9 per cent, were ordered by labor organizations; 33, or 21.8 per cent, were not so ordered, and of the remaining 20 strikes the returns were incomplete. Forty-three, or 28.4 per cent, of the strikes succeeded; 70, or 46.3 per cent,

failed; 32, or 21.2 per cent, succeeded partly, and in the cases of the others the results were doubtful.

In 114 strikes the returns indicated that 9,017 persons were involved who were not actually engaged as strikers, but who were prevented from working on account of strikes. The average duration in 143 strikes, where the time was reported, was 31.8 days. In the 151 establishments where strikes occurred, 134, or 88.7 per cent, of the establishments were closed for longer or shorter periods of time; 13, or 8.6 per cent, were not closed, and for the others this fact was not reported upon.

Estimates of actual loss to strikers were received from 132, or 87.4 per cent, of all the strikes. In these there were 15,109 persons engaged, whose loss in wages, etc., amounted to $913,495, or an average of $60.46 per person. In one strike no loss to strikers was reported. As regards loss to operators, estimates were received from 89 establishments. These showed a total loss of $235,883. Sixteen establishments reported no loss.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

Bulletin de l'Institut International de Statistique. Tome VIII, 2e Livraison. Luigi Bodio, Secrétaire Général. xi, 346 pp.

This volume is almost entirely devoted to a reproduction of the report presented by E. Levasseur on behalf of the committee on statistics of education, concerning the statistics of primary education in all the civilized countries of the world. This committee was appointed in 1889 and made a first report in 1891 at the session of the Institute held at Vienna. The present is a second report made according to the same plan in which the effort is made to complete the information thus given and to include countries concerning which information could not be obtained for the former report. The report consists of two parts. In the first, primary education is historically and statistically treated of in each country separately. The second is an attempt to make a general comparative study of the subject of primary education in all of the countries, based upon the information given in the first part.

Bulletin de l'Institut International de Statistique. Tome IX, 2e Livraison. Luigi Bodio, Secrétaire Général. cx, 314 pp.

This volume gives a report of the fifth session of the International Statistical Institute, which was held at Bern, Switzerland, August 26–31, 1895. In addition to the report of proceedings, the list of members, committees, etc., it embraces the following papers which were read at this meeting:

1. Die Einkommensverteilung in alter und neuer Zeit [The division of incomes in ancient and modern times], by G. Schmoller.
2. L'état démographique de la Roumanie d'après le mouvement de la population [The demographic condition of Roumania according to the movement of population], by C. Crupenski.
3. Taxation in the United States, with suggestions for establishing a form for comparing the taxation of different countries, by Edward Atkinson.
4. L'échange international des bulletins de recensement concernant les étrangers: Rapport fait au nom de la première section [The international exchange of census bulletins concerning foreigners: Report made in behalf of the first section], by H. Rauchberg.

5. L'échange international des bulletins de recensement concernant les étrangers: Motion présentée au Bureau de l'Institut International de Statistique [The international exchange of census bulletins concerning foreigners: Motion presented to the Bureau of the International Statistical Institute], by K. T. von Inama-Sternegg, F. von Juraschek, and H. Rauchberg.
6. Statistique internationale des valeurs mobilières [International statistics of personal property], by A. Neymarck.
7. La longévité dans les familles [Longevity in families], by L. Vacher.
8. Les causes des régularités statistiques [The causes of statistical regularities], by W. Lexis.
9. Sur un certain nombre de professions qu'il est particulièrement désirable de voir figurer sur les nomenclatures professionnelles des différents pays [Concerning a certain number of occupations which it is particularly desirable should be included in the nomenclature of occupations in the various countries], by J. Bertillon.
10. Trois projets de nomenclature des infirmités [Three plans for a nomenclature of infirmities], by J. Bertillon.
11. Nomenclature des accidents [The nomenclature of accidents], by J. Bertillon.
12. Zur Frage einer internationalen Berufssparkassenstatistik [The question of international statistics of the occupations of savings-bank depositors], by K. Rasp.
13. Statistique de la production, du mouvement international et de la consommation des métaux précieux [Statistics of the production, international movement, and consumption of the precious metals], by C. F. Ferraris.
14. International military medical statistics, by J. S. Billings.
15. La statistique agricole: Rapport fait à l'assemblée générale au nom de la troisième section [Agricultural statistics: Report made in behalf of the third section to the general assembly], by Th. Pilat.
16. La statistique agricole: Rapport fait à la troisième section de la session de Berne [Agricultural statistics: Report made to the third section of the session at Bern], by Th. Pilat.
17. La statistique du tonnage des transports à l'intérieur: Rapport fait au nom du comité des transports à l'intérieur [Statistics of the tonnage of internal commerce: Report made in behalf of the committee of internal commerce], by E. Cheysson.
18. La statistique des transports à l'intérieur: Supplément au rapport de Vienne en 1891 [Statistics of internal commerce: Supplement to the report of Vienna in 1891], by J. Borkowsky.
19. Les registres de population: Rapport fait au nom de la première section [Registers of population: Report made in behalf of the first section], by E. Nicolaï.

20. La statistique des divorces: Rapport fait au nom de la première section [Statistics of divorce: Report made in behalf of the first section], by E. J. Yvernès.
21. Le premier recensement de la population de l'Empire russe qui doit être fait en 1897 [The first census of the population of the Russian Empire to be taken in 1897], by N. Troïnitsky.
22. L'échange des publications statistiques [The exchange of statistical publications], by E. Nicolaï.
23. Le dénombrement général de la population en 1900: Rapport présenté au nom de la première section [The general census of population in 1900: Report presented in behalf of the first section], by L. Guillaume.
24. Die Erhebungsperiode der Handelsstatistik [The periods for the collection of trade statistics], by T. Geering.
25. Comparabilité des statistiques du commerce [Comparability of statistics of commerce], by W. A. Verkerk Pistorius.
26. La statistique commerciale internationale: Rapport fait au nom de la deuxième section [International statistics of commerce: Report made in behalf of the second section], by A. E. Bateman.
27. La statistique des salaires des ouvriers industriels: Rapport fait au nom de la quatrième section [Wage statistics of industrial workmen: Report made in behalf of the fourth section], by K. T. von Inama-Sternegg.
28. Essai de statistique internationale des produits agricoles [Essay concerning international statistics of agricultural products], by P. G. Craigie.
29. Observations et expériences concernant les dénombrements représentatifs [Observations and experiences concerning representative censuses], by A. N. Kiaer.
30. La statistique internationale de la consommation de l'alcool: Rapport fait au nom de la quatrième section [International statistics of the consumption of alcohol: Report made in behalf of the fourth section], by G. E. Milliet.
31. De la protection de l'enfance et plus spécialement de l'assistance aux enfants-trouvés en Italie et dans quelques autres États [The protection of children and especially the assistance of foundlings in Italy and some other states], by E. Raseri.
32. Statistique des forêts: Question rédigée sur la proposition de la Société Nationale d'Agriculture [Statistics of forests: A schedule of inquiry prepared in accordance with a proposition of the National Agricultural Society], by E. Levasseur.
33. Des méthodes à suivre pour l'étude des différentes classes sociales [Methods to be followed in studying the different social classes], by J. Bertillon.
34. Les progrès de la statistique en Roumanie et la création du service d'anthropométrie [The progress of statistics in Roumania and the creation of the service of anthropometry], by Gr. P. Olanesco.

35. Sur l'utilité de la publication d'un compte-rendu annuel international de la statistique du mouvement de la population: Rapport fait au nom de la première section [The utility of publishing an annual international report on the statistics of the movement of population: Report presented in behalf of the first section], by G. von Mayr.
36. Internationale Jahresberichte über die Bevölkerungsbewegung [International annual reports concerning the movement of population], by G. von Mayr.
37. L'organisation d'une statistique internationale du chômage [The organization of international statistics of nonemployment], by C. Moron.
38. L'organisation internationale de la statistique du travail [The international organization of statistics of labor], by H. Denis.
39. L'organisation internationale de la statistique du travail: Rapport sur la proposition de M. Denis, fait au nom de la quatrième section [The international organization of statistics of labor: Report concerning the proposition of M. Denis, made in behalf of the fourth section], by E. Cheysson.
40. La machine électrique à recensement: Expériences et améliorations [The electrical tabulating machine: Experiences and improvements], by H. Rauchberg.
41. La comparaison entre les statistiques du commerce des différents pays [The comparison of statistics of commerce of different countries], by A. E. Bateman.
42. Organisation et développement de l'office du travail en Angleterre [Organization and development of the labor bureau of England], by A. E. Bateman.
43. La crise du revenu [The income crisis], by E. Cheysson.
44. La monographie de commune [Monographs of communes], by E. Cheysson.
45. Conférence sur les lois statistiques [Address on statistical laws], by G. von Mayr.
46. Conférence sur l'histoire de la démographie [Address on the history of demography], by E. Levasseur.

Minimum de Salaire. Enquête—Mai 1896. Rapport présenté au Conseil communal au nom de la Commission d'enquête, par M. le Bourgmestre, Président. Ville de Bruxelles, Travaux Publics. 180 pp.

In May, 1896, the communal council of Brussels appointed a commission, of which M. Buls, the mayor, was made president, to make an investigation of the subject of the advisability of adopting a minimum wage scale for all workingmen employed by the municipality, and as a part of such inquiry to determine to what extent this principle had been accepted by other public bodies in Belgium.

In accordance with these instructions, the commission sent out

schedules of inquiry to the provincial administrations, to the administrations of communes having a population of over 8,000, to organizations of employers and workingmen, and to certain private employers who had done work for the city of Brussels. The information thus obtained was supplemented by statements showing the actual wages paid to employees in the different services of the city and a calculation of what would be the financial results of the application of a system of minimum wages.

The replies of each body or individual making response to the schedules sent are given separately.

As regards the provinces, a résumé of the information given shows that 8 provinces make some sort of provision concerning the minimum wages to be paid workingmen employed either directly by them or by contractors working on their account. Of these, 6 stipulate expressly the minimum wages to be paid, and 2 require the contractors to state in their bids the minimum wages that they will pay. Four provinces require the contractors to submit regular accounts of wages paid by them, and 3 require them to insure their employees against accidents. All of the 8 report that they have received no complaint concerning the working of the system, either from the contractors or the workingmen; and but 2 have experienced any abnormal financial results, a slight increase in the cost of certain work being in each case noticed.

The returns from the communes show that 47, with a total population of 1,427,515, have provisions concerning the minimum wages that must be paid workingmen engaged on public work, and that 39, with a total population of 586,919, have no such provisions. Five of the latter, however, announce that such a measure will probably be introduced within a short time. Of the 47 with minimum wage provisions, 38 indicate the rate of wages that must be paid either by themselves or by contractors working for them. The other 9 require the contractors to indicate in their bids the lowest wages that they will pay to their employees. If this rate is deemed too low their bids are not considered. Twenty-four communes require the contractor to keep a special record of wages paid and to furnish other information to the administration. Seventeen communes have fixed the maximum duration of the working-day; the others have no provisions on this subject. Eighteen communes require the contractors to insure their workingmen against accidents. All of the communes except two from which information was obtained declare that they have received no complaint concerning the workings of the system; and all save one report that no abnormal financial effects have resulted. Seventeen of the communes, however, have as yet executed no work under the régime of minimum wages.

In making reply to the circulars sent to them, 2 provinces and 16 communes gave the schedules of minimum wages adopted by them. From these statements it has been possible to compile the following table, showing the minimum wages per hour paid by each in most of the

principal occupations in the building trades. In constructing this table unusual occupations and those for which but a single quotation could be secured were omitted. Omissions on this account, however, were very few in number.

MINIMUM WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN THE BUILDING TRADES PAID BY CERTAIN PROVINCES AND COMMUNES OF BELGIUM.

Occupation.	Province Hainaut.	Commune Jumet.	Commune Braine-le-Comte.	Commune Tournai.	Commune Roulers.	Commune Menin.	Commune Gendbrugge.	Commune Nivelles.	Commune Verviers.
Excavator	$0.048	$0.048	$0.048	$0.058	$0.041	$0.058	$0.054	$0.058	$0.058
Paver	.068	.068	.068	.087	.077	.....	.062	.077	.087
Paver's helper	.044	044	.044	.....	.058	.....	.042	.....	.....
Mason	.068	.068	.068	.068	.058	.058	.058	.068	.077
Mason's helper	.044	.044	.044	.039	.041	.039	.042	.044	.....
Stonecutter	.068	.068	.068	.077	.068	.068	.068	.077	.077
Plasterer	.069	.069	.069	.068	.058	.058	.062	.068	.068
Plasterer's helper	.050	.050	.050	.034	.041	.039	.042	.044	.....
Painter	.064	.064	.064	.068	.058	.058	.....	.073	.....
Glazier	.068	.068	.068	.077	.058	.058	.....	.....	.....
Glazier's helper	.044	.044	.044	.....	.....	.....	.....	.....	.....
Carpenter and joiner	.068	.068	.068	.068	.058	.058	.062	.....	.068
Carpenter and joiner's helper	.044	.044	.044	.....	.....	.039	.....	.....	.....
Locksmith	.069	.069	.069	.073	.....	.....	.....	.....	.....
Locksmith's helper	.044	.044	.044	.....	.....	.....	.....	.....	.....
Driver	.054	.054	.054	.....	.....	.....	.....	.....	.058
Plumber	.....	.....	.....	.087	.058	.....	.062	.....	.068
Plumber's helper	.....	.....	.....	.031	.....	.....	.042	.....	.....
Lead and zinc worker	.077	.077	.077	.073	.....	.058	.....	.....	.....
Lead and zinc worker's helper	.044	044	.044	.....	.....	.....	.....	.....	.....
Zinc worker	.....	.....	.....	.....	.058	.....	.....	.....	.068
Slater	.....	.....	.....	.....	.058	.....	.062	.....	.....
Slater's helper	.....	.....	.....	.....	.041	.....	.042	.....	.....
Slate roofer	.077	.077	.077	.....	.....	.058	.....	.068	.....
Slate roofer's helper	.052	.052	.052	.....	.....	.....	.....	.044	.....
Roofer	.....	.....	.....	.077	.....	.....	.....	.....	.....
Roofer's helper	.....	.....	.....	.029	.....	.039	.....	.....	.....
Blacksmith	.....	.....	.....	.....	.058	.058	.....	.077	.....
Marble worker	.069	.069	.069	.....	.....	.....	.....	.....	.....
Paper and tapestry hanger	.068	.068	.068	.....	.....	.....	.....	.....	.....
Whitewasher	.058	.058	.058	.....	.....	.....	.....	.....	.....

Occupation.	Province Brabant.	Commune Anderlecht.	Commune Alost.	Commune Grammont.	Commune Berchem-Anvers.	Commune Charleroi.	Commune Herstal.	Commune Schaerbeek.	Commune Dison.
Excavator	$0.048	$0.068	$0.039	.....	$0.058	$0.058	.....	$0.068	$0.064
Paver	.....	.077	.058	.....	.077	.073	$0.073	.077	.....
Paver's helper	.042	.048	.039	.....	.054	.....	.....	.048	.....
Mason	.....	.068	.052	$0.048	.071	.073	.077	.077	.....
Mason's helper	.042	.048	.039	.039	.054	.....	.....	.048	.....
Stonecutter	.....	.....	.058	.....	.....	.....	.....	.....	.....
Painter	.....	.....	.....	.048	.....	.....	.....	.....	.....
Glazier	.....	.....	.....	.068	.....	.....	.....	.....	.....
Carpenter and joiner	.....	.....	.....	.048	.....	.....	.....	.....	.....
Driver	.....	.....	.....	.....	.....	.....	.....	.058	.....
Blacksmith	.....	.....	.....	.048	.....	.....	.....	.....	.....
Marble worker	.....	.....	.....	.058	.....	.....	.....	.....	.....
Filler-in, masonry	.....	.....	.....	.....	.068	.....	.068	.....	.068

The replies received from the associations of employers and employees are much less interesting in character and need not here be considered.

The information concerning workingmen employed directly by the city of Brussels showed a total of 1,570 persons employed, of which 800 were credited to the city gas works, 344 to the street-cleaning

department, 299 to public works proper, and the remainder to other services. Of these, 7 received in wages less than 2 francs ($0.39) per day, 17 from 2 to 2.50 francs ($0.39 to $0.48), 240 from 2.50 to 3 francs ($0.48 to $0.58), 528 from 3 to 3.50 francs ($0.58 to $0.68), 348 from 3.50 to 4 francs ($0.68 to $0.77), 258 from 4 to 4.50 francs ($0.77 to $0.87), 129 from 4.50 to 5 francs ($0.87 to $0.97), 31 from 5 to 5.50 francs ($0.97 to $1.06), and 12 over 5.50 francs ($1.06). The most prevalent wage rate was that from 3 to 3.50 francs ($0.58 to $0.68), 528, or slightly over one-third of the total number of employees, being found in that class, while 606, or nearly two-fifths, received from 3.50 to 4.50 francs ($0.68 to $0.87). Eleven hundred and thirty-four workingmen, or 72 per cent of all employed, therefore, received from 3 to 4.50 francs ($0.58 to $0.87) per day.

On the basis of this information two calculations were made in order to show the extra expense that would be caused to the city under two different systems of minimum wages. The second calculation, showing the result if all employees worked eight hours a day only and all receiving less than 4 francs ($0.77) per day had their wages increased to that amount, indicated that the extra expense to the city consequent upon its introduction would be 751,740.90 francs ($145,085.99).

Travail du Dimanche: Établissements Industriels (non compris les mines minières et carrières). Volume I, Belgique. Office du Travail, Ministère de l'Industrie et du Travail. 1896. lxiii, 503 pp.

The present report is the first of a series of volumes under preparation by the Belgian labor bureau, the object of which is to determine the extent and character of work performed on Sunday in all industries. The investigation when complete will consist of five parts giving (1) the results of an investigation concerning Sunday work in industrial establishments other than mines and quarries, (2) the same concerning mines and quarries, (3) the opinions and advice of the councils of industry and commercial and industrial associations, (4) Sunday work in large stores, and (5) Sunday work in foreign countries (Germany, Austria, Switzerland, and England). Only the first of these, the present report, has as yet been completed.

In this report information was obtained from 1,459 establishments or divisions of establishments, representing 268 different industries and employing 119,477 working men and women.

Of the 1,459 establishments, 12 employed 1,000 or more working people, 34 from 500 to 999, 75 from 250 to 499, 326 from 50 to 249, 470 from 10 to 49, and 542 less than 10 employees.

Of the 119,477 employees, 93,275, or 78.07 per cent, were males, of which 84,762 were 16 years of age or over and 8,513 under that age; and 26,202, or 21.93 per cent, were females, of which 13,163 were 21 years of age or over, 9,127 between the ages of 16 and 21, and 3,912 less that 16 years of age.

In the analysis of the material collected, the Belgian bureau has first made a division of the establishments into two classes—those carrying on regular and those carrying on irregular Sunday work. Within each of these a further threefold division has been made: (1) The work of production proper, (2) the work of repair, cleaning, and maintenance, and (3) the work of guarding, transportation, and shipment.

The report contains six general tables, one for each of these branches. These tables give for each establishment separately the character of the industry, its location, the total number of employees, and the number employed on Sunday, according to sex and age periods, and the per cent of the total number of employees thus employed. These tables, it should be remarked, are not mutually exclusive, as the same establishment may and usually does figure in all six tables.

Of the 1,459 establishments considered, 513, or 35.16 per cent, show no Sunday work, while in 946, or 64.84 per cent, such work is carried on. In these latter, 183, or 19.34 per cent, exhibit regular Sunday work, 516, or 54.55 per cent, Sunday work at irregular occasions, and 247, or 26.11 per cent, both regular and irregular Sunday work.

According to the nature of the work done, 675, or 71.35 per cent, work on Sunday in productive operations, 500, or 52.85 per cent, at repairs, cleaning, etc., and 109, or 11.52 per cent, at guarding works, transportation, and shipment. The sum of these establishments of course exceeds 946, as the same establishments engaged in more than one kind of work.

If distinction be made also as to whether work is regular or not, it is found that of the 946 establishments working Sundays 308, or 32.56 per cent, work regularly at the operations of production, 143, or 15.12 per cent, regularly at repairs, etc., and 74, or 7.82 per cent, regularly at guarding, transportation, etc.; and that 462, or 48.84 per cent, work irregularly at operations of production, 392, or 41.44 per cent, irregularly at repairs, etc., and 41, or 4.33 per cent, irregularly at guarding, etc.

If the percentages be calculated according to the total number of establishments investigated, whether pursuing Sunday work or not, it will be seen that 21.11 per cent of all work regularly on Sundays in the operations of production, 9.80 per cent at repairs, etc., and 5.07 per cent at guarding, transportation, etc.; and 31.67 per cent irregularly at production, 26.87 per cent at repairs, etc., and 2.81 per cent at guarding, transportation, etc.

The reasons for Sunday work were not always stated. It is of interest, however, to know that of the 308 establishments pursuing regular Sunday work in production 119, or 38.64 per cent, carried on such work the whole 24 hours on account of the nature of the work, which was such as to demand continuous operations. The best example of this is that of blast furnaces. In 189 other establishments work was carried on during a part of Sunday only, and in 91 of these the work was due

to the fact that one of the shifts of work extended over from Saturday night into Sunday morning. There, therefore, remain 98 establishments, or 31.82 per cent, where Sunday work had no relation to maintaining the continuity of work. In 462 establishments, where work at production was carried on during certain Sundays of the year only, the desire to take advantage of certain seasons of the year was responsible for 76 establishments, or 16.45 per cent, doing Sunday work.

In regard to the frequency of Sunday work in those establishments where irregular Sunday work was carried on, in 110, or 14.42 per cent, of such cases Sunday work was practiced on 26 Sundays or over, in 244, or 31.98 per cent, on from 10 to 25 Sundays, and in 409, or 53.60 per cent, on less than 10 Sundays.

In a great many of these cases the whole establishment would not, of course, be in operation as during week days. The following table is intended to show the extent to which the entire force was employed:

ESTABLISHMENTS WITH SPECIFIED PER CENT OF EMPLOYEES AT WORK ON SUNDAY.

Per cent of employees at work on Sunday.	Regular work.			Irregular work.		
	Production.	Repairs, cleaning, maintenance.	Guarding, transportation, shipment.	Production.	Repairs, cleaning, maintenance.	Guarding, transportation, shipment.
Less than 5 per cent	16	77	53	174	289	27
From 5 to 24 per cent	61	52	14	153	33	3
From 25 to 49 per cent	94	6	4	32	1	1
Not less than 50 per cent	127	3	3	17	.....	.....
Not stated	10	5	.....	86	69	10
Total	308	143	74	462	392	41

In this table the most interest naturally attaches to establishments with regular Sunday work. Deducting the 15 establishments not reporting the per cent of their employees at work, it will be seen that of the 510 remaining, 133, or 26.08 per cent, employed on Sunday at least 50 per cent of their employees; that 104, or 20.39 per cent, employed from 25 to 49 per cent; 127, or 24.90 per cent, from 5 to 24 per cent, and 146, or 28.63 per cent, less than 5 per cent of their force.

Turning to the question of the number of working people employed on Sunday, it is found that 77,798, or 65.12 per cent, of all the employees covered by the investigation were never employed on Sundays, while 41,679, or 34.88 per cent, were occupied all or occasional Sundays. Of this last number 13,651, or 32.75 per cent, worked every Sunday; 14,712, or 35.30 per cent, every other Sunday in order to complete the shift, and 13,316, or 31.95 per cent, occasional Sundays only. In relation to the total number of persons investigated, or 119,477, these percentages are 11.43 working every Sunday, 12.31 every other Sunday, and 11.15 occasional Sundays.

In regard to the nature of the work, 37,166, or 89.17 per cent, of the 41,679 workingmen who were employed more or less on Sundays were

engaged in the operations of production, 4,062, or 9.75 per cent, in the work of repair, cleaning, and maintenance, and 451, or 1.08 per cent, in the work of guarding, transportation, and shipment. It will thus be seen that the great majority, or between 89 and 90 per cent, of those working on Sundays were engaged in the operations of production.

It has been seen that 13,316 persons work only occasionally on Sundays. In the cases of 1,699 of these the frequency of Sunday labor was not determined. Of the remaining 11,617 persons 950, or 8.18 per cent, work 26 Sundays or more, 4,352, or 37.46 per cent, from 10 to 25 Sundays, and 6,315, or 54.36 per cent, less than 10 Sundays. With this class, therefore, Sunday work is comparatively infrequent.

To obtain precise information concerning the extent of Sunday work it is necessary to carry the analysis to the number of hours worked on Sunday. The most important class of Sunday workers are those who are employed regularly on that day. This class numbers 13,651. Of these, 12,011 are employed in the operations of production. Among these it is found that 3,523 work the same number of hours each Sunday, and 8,488 a different number of hours on alternate Sundays. In the first class 917 work at least 12 hours, 1,521 from 6 to 12 hours, 1,022 less than 6 hours, and 63 a number of hours that could not be determined. In the second class 3,869 work alternate Sundays 6 and 18 hours, 900 alternately 7 and 17 hours, 1,603 first 6, then 12, and then 6 hours, and 2,116 in some other combination. Of the 1,422 employed regularly in repair, cleaning, and maintenance work 106 were employed at least 12 hours, 644 from 6 to 12 hours, 652 less than 6 hours, and 20 a number of hours not determined. Of the 218 employed in guarding, transportation, and shipment service 32 were employed at least 12 hours, 94 from 6 to 12 hours, 47 less than 6 hours, and the remainder a number of hours not determined.

Among the 14,712 workingmen who are employed alternate Sundays in order to complete the shift, the great majority work 6 hours, or until 6 o'clock in the morning, and the remaining workingmen various hours from 4 to 12.

In regard to the 13,316 workingmen who are employed only occasionally on Sundays, after deducting 536 whose hours of labor could not be obtained, it is found that 4,398 are organized in shifts which for the most part work first 6 and then 12 or 18 hours on alternate Sundays, 1,590 at least 12 hours when working, 3,320 from 6 to 12 hours, and 3,472 less than 6 hours.

In the foregoing no account has been taken of the sex or ages of employees. The facts regarding Sunday employment have been presented in the following table in such a way as to bring out these elements:

NUMBER AND PER CENT OF EMPLOYEES WORKING SUNDAY, BY SEX AND AGE.

Sex and age.	Employees working every Sunday.		Employees working alternate Sundays.		Employees working occasional Sundays.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Males 16 years or over	11,985	28.75	12,642	30.33	12,163	29.19	36,790	88.27
Females 21 years or over	255	.61	794	1.91	429	1.03	1,478	3.55
Males under 16 years	866	2.08	1,168	2.80	407	.97	2,441	5.85
Females 16 to 20 years	367	.88	76	.18	253	.61	696	1.67
Females under 16 years	178	.43	32	.08	64	.15	274	.66
Total	13,651	32.75	14,712	35.30	13,316	31.95	41,679	100.00

From this table it will be seen that 88.27 per cent of those working Sunday were males 16 years of age or over, and 5.85 per cent were males under that age. On the other hand, 3.55 per cent of those working Sunday were females 21 years of age or over, and 2.33 per cent were under that age. It must be remembered that the work performed on alternate Sundays is really more in the nature of work Saturday night, as it is usually terminated early Sunday morning, than Sunday work proper.

There remains one other element yet to be considered in treating of Sunday work—that of the industries in which it is prevalent. The significant results of the whole investigation, from this standpoint, are brought out in the following table, wherein is given the extent of Sunday work in the 68 most important industries.

In this tabulation there are included all industries in which over 10 establishments were investigated or those employing more than 700 workingmen. The table thus restricted relates to 1,069 establishments and 102,952 employees, or 73.27 per cent of all establishments and 86.17 per cent of all employees comprehended within the investigation. A special feature of this table is the column wherein has been shown the per cent of hours worked of possible hours of Sunday work, in order that the relative prevalence of Sunday work in the different industries can be easily discernible. This per cent was calculated in the following manner: The total number of employees in each industry was multiplied by 24 in order to give the maximum number of hours of possible work. For each establishment the number of persons working on Sunday was then multiplied by the number of hours that they worked. The sum of these latter amounts was then divided by the first amount, representing the possible capacity. In the case of irregular work the factor of the number of Sundays worked was also taken into account.

PER CENT OF IRREGULAR SUNDAY WORK, BY INDUSTRIES—Concluded.

[In calculating the per cent of hours worked of possible hours of work in the last column of this table 24 has been taken as the possible hours of work for each employee.]

Industry.	Establishments considered.	Employees considered.	Production.		Repair cleaning, maintenance.		Guarding, transportation, shipment.		Per cent of hours worked of possible hours of work.
			Per cent of establishments working Sundays.	Per cent of employees working Sundays.	Per cent of establishments working Sundays.	Per cent of employees working Sundays.	Per cent of establishments working Sundays.	Per cent of employees working Sundays.	
Woolen spinning	27	2,991	3.7	1.0	44.4	1.2	.....	.....	.23
Jute and hemp spinning and weaving	9	1,283	11.1	0.3	70.0	2.1	.....	.....	.07
Linen spinning and weaving	18	7,299	.....	.....	83.3	1.4	5.0	0.1	.09
Copper and bronze foundry	12	212	41.7	11.3	8.3	0.9	.....	.....	66
Iron foundry (small articles)	10	526	20.0	0.4	20.0	4.2	.....	.....	.22
Iron foundry and cast-steel works	18	796	16.7	3.3	22.2	1.4	.....	.....	.44
Manufacture of iron castings	11	2,284	18.2	3.6	.....	.....	.....	.....	.32
Manufacture of gas	14	547	7.1	1.8	14.2	0.5	11.7	4.5	.42
Gauze, lead, and zinc working	18	74	22.2	21.6	.....	.....	.....	.....	.74
Ice making	2	995	50.0	10.2	.....	.....	.....	.....	.44
Printing and lithographing	31	1,090	64.5	12.5	12.2	1.0	3.2	0.3	.55
Manufacture of laces, ribbons, and braids	3	713	.....	.....	.....	.....	.....	.....	.....
Iron and steel plate rolling	5	543	60.0	12.3	92.9	2.5	40.7	1.1	.62
Copper and zinc rolling	7	663	14.3	7.5	28.5	1.2	.....	.....	.43
Wool washing and singeing	11	657	27.0	16.3	27.2	1.0	.....	.....	.78
Laundry work	14	169	14.0	12.4	7.1	0.7	.....	.....	.18
Manufacture of machinery, metallic constructions, railway cars, and supplies	30	6,196	70.0	7.8	50.0	4.7	.....	.....	.80
Manufacture of small machinery, accessories, and tools	14	235	.....	.....	14.2	1.8	.....	.....	.17
Masonry and ceiling work	14	246	7.1	1.2	.....	.....	.....	.....	.02
Marble sawing and cutting	14	113	21.4	24.8	.....	.....	.....	.....	.60
Horseshoeing	10	24	60.0	54.2	.....	.....	.....	.....	2.23
Flour milling	34	738	17.6	6.0	23.5	23.8	8.8	0.9	1.83
Paper and pasteboard making	16	2,839	31.2	4.4	62.5	2.1	.....	.....	1.25
Preparation of phosphate of lime	8	143	.....	.....	37.5	2.8	.....	.....	.38
Preparation of hair for hats	4	750	.....	.....	75.0	2.1	.....	.....	.06
Manufacture of china and porcelain	1	879	100.0	4.3	100.0	5.3	.....	.....	.48
Wool preparation	10	338	.....	.....	40.0	2.6	.....	.....	.04
Ironing linens	10	89	40.0	42.7	.....	.....	.....	.....	1.90
Cotton and linen twisting	3	994	.....	.....	100.0	2.6	.....	.....	.14
Flax retting and breaking	10	398	60.0	44.7	30.0	5.7	.....	.....	3.52
Soap making	12	99	33.3	16.2	16.6	3.0	8.3	2.0	.71
Wood sawing	17	232	17.6	20.0	47.0	10.0	.....	.....	.66
Locksmithing and stove manufacture	16	223	18.7	18.2	6.2	0.5	.....	.....	.74
Sugar making and refining	20	2,957	100.0	82.0	40.0	5.1	.....	.....	5.86
Manufacture of tobacco and cigars	18	727	5.5	0.3	5.5	0.5	.....	.....	.03
Leather tanning and currying	16	478	31.2	2.5	12.5	0.6	.....	.....	.03
Tapestry and decorating	8	83	25.0	4.8	.....	.....	.....	.....	.06
Dyeing of threads and woven goods	25	741	.....	.....	32.0	1.5	.....	.....	.13
Garment dyeing and cleaning	10	165	40.0	40.0	10.0	1.8	.....	.....	2.15
Cotton weaving	17	2,922	5.9	0.03	70.5	2.2	.....	.....	.07
Woolen weaving	11	1,613	.....	.....	54.5	0.9	.....	.....	.01
Manufacture of mixed woven goods	20	3,610	5.0	0.1	60.0	1.6	5.0	0.1	.05
Cooperage	11	248	36.3	28.2	18.1	2.8	.....	.....	.40
Manufacture of window glass	8	4,052	88.9	11.3	12.5	0.3	.....	.....	.34
Manufacture of men's and women's clothing	23	99	52.2	49.5	.....	.....	.....	.....	.73
Manufacture of zinc	10	4,278	.....	.....	30.0	0.4	.....	.....	.01

PER CENT OF REGULAR SUNDAY WORK, BY INDUSTRIES—Concluded.

[In calculating the per cent of hours worked of possible hours of work in the last column of this table 24 has been taken as the possible hours of work for each employee.]

Industry.	Establishments considered.	Employees considered.	Production.		Repair, cleaning, maintenance.		Guarding, transportation, shipment.		Per cent of hours worked of possible hours of work.
			Per cent of establishments working Sundays.	Per cent of employees working Sundays.	Per cent of establishments working Sundays.	Per cent of employees working Sundays.	Per cent of establishments working Sundays.	Per cent of employees working Sundays.	
Paper and pasteboard making	15	2,000	60.0	15.2	18.7	3.9	.....	.....	5.63
Preparation of phosphate of lime	11	312	54.5	26.6	36.3	5.1	45.4	1.5	12.43
Preparation of hair for hats	4	750	.....	.....	.....	.....	.....	.....	.....
Manufacture of china and porcelain	3	960	66.6	2.3	33.3	0.8	33.3	0.1	.85
Wool preparation	11	1,047	18.2	19.8	18.2	2.9	.....	.....	4.74
Ironing linens	11	95	.....	.....	.....	.....	.....	.....	.....
Cotton and linen twisting	3	994	33.3	5.2	.....	.....	.....	.....	1.13
Flax retting and breaking	10	398	.....	.....	.....	.....	.....	.....	.....
Soap making	13	102	7.7	1.9	.....	.....	.....	.....	.65
Wood sawing	17	232	.....	.....	11.8	3.0	5.9	0.4	.61
Locksmithing and stove manufacture	17	225	.....	.....	.....	.....	5.9	0.9	.18
Sugar making and refining	20	2,957	.....	.....	.....	.....	.....	.....	.....
Manufacture of tobacco and cigars	18	727	5.5	0.3	.....	.....	.....	.....	.01
Leather tanning and currying	19	538	21.1	2.2	.....	.....	5.3	0.4	.33
Tapestry and decorating	11	97	.....	.....	.....	.....	.....	.....	.....
Dyeing of threads and woven goods	26	773	15.4	6.3	3.8	0.6	.....	.....	1.62
Garment dyeing and cleaning	10	165	.....	.....	.....	.....	.....	.....	.....
Cotton weaving	19	3,405	.....	.....	21.1	0.3	15.8	0.1	.10
Woolen weaving	12	1,760	.....	.....	16.6	0.6	.....	.....	.09
Manufacture of mixed woven goods	20	3,610	.....	.....	20.0	0.3	5.0	0.03	.04
Cooperage	11	248	.....	.....	.....	.....	.....	.....	.....
Manufacture of window glass	9	4,944	100.0	73.4	.....	.....	.....	.....	24.65
Manufacture of men's and women's clothing	27	125	3.7	1.6	.....	.....	.....	.....	.33
Manufacture of zinc	7	1,898	100.0	65.5	.....	.....	.....	.....	22.28

PER CENT OF IRREGULAR SUNDAY WORK, BY INDUSTRIES.

Manufacture of sulphuric acid, and related industries	11	432	9.1	0.5	.....	.....	.....	.....	.13
Manufacture of steel	4	1,336	50.0	25.9	42.9	4.5	.....	.....	1.45
Manufacture of matches	6	786	.....	.....	50.0	1.2	.....	.....	.02
Sizing of woven goods	11	555	9.0	1.1	45.4	2.1	.....	.....	.26
Manufacture of arms	13	2,530	30.8	2.4	15.4	0.4	.....	.....	.07
Manufacture of candles	3	740	33.3	18.0	66.6	0.8	.....	.....	.70
Bread and pastry baking	31	321	16.1	3.7	6.4	1.5	.....	.....	.16
Manufacture of bolts and screws	8	817	.....	.....	75.0	1.8	.....	.....	.13
Brewing and malting	63	666	68.0	21.0	4.8	1.5	3.2	0.3	4.59
Manufacture of bricks	9	432	88.8	4.1	20.0	1.3	.....	.....	1.41
Manufacture of brushes	10	529	.....	.....	22.2	1.0	.....	.....	.02
Manufacture of carriages and wagons	16	139	43.8	8.6	.....	.....	.....	.....	.37
Manufacture of hats	6	969	16.6	0.1	33.3	1.7	.....	.....	.13
Carpentry and joinery	21	219	42.9	16.9	.....	.....	.....	.....	.53
Boiler making	16	1,211	68.7	9.8	25.0	1.5	.....	.....	.66
Manufacture of lime	18	734	27.8	19.6	.....	.....	.....	.....	.25
Manufacture of cement	11	571	18.2	0.4	27.2	3.9	9.1	1.0	.67
Manufacture of shoes, etc.	20	466	20.0	5.4	10.0	1.5	10.0	0.8	.09
Manufacture of glass and glassware	8	2,609	25.0	0.1	37.5	0.2	.....	.....	.06
Cabinetmaking	16	113	18.7	6.2	.....	.....	.....	.....	.22
Iron puddling and rolling	24	8,222	58.3	82.9	58.3	4.1	3.7	0.2	3.11
Cotton spinning	14	1,893	.....	.....	78.5	4.2	.....	.....	.18

The expenditures incurred on works in aid of the unemployed for the twelve months ending February, 1896, is set down at £201,591 4s. 1d. ($981,043.60). This was used in the prosecution of public works, such as grading, road construction, forest thinning, etc., the payment of railway and steamer transportation, the furnishing of rations, special grants to municipalities for necessary works, and to benefit local destitute unemployed.

Fifth Annual Report of the Department of Labor of New Zealand for the year ending March 31, 1896. Hon. R. J. Seddon, Minister of Labor. xxxiv, 46 pp.

This report, like that for the preceding year, deals with the condition of the labor market; assistance rendered by the department in finding employment for persons out of work, and wages and employees in railway workshops and factories; the effect of certain features of the factory inspection and shops acts, and reports of factory inspectors. In addition to these topics the present report touches briefly upon the effects of the truck act; industrial conciliation and arbitration; the servants' registry offices; foreign immigration; cooperative works, and publishes the minutes of the proceedings of the board of conciliation.

Much space is devoted to the operations of the employment bureau of this department. During the year 2,871 persons obtained employment through this bureau, 1,880 of whom were married. Of the total number, 708 were sent to private employment, and 2,163 to Government works.

Since the organization of the department, June, 1891, 15,739 men have been assisted, and these with their dependents make a total of 53,579 persons who have been directly benefited by this branch of the labor department during the five years of its existence.

The number of factories registered under the factories act increased during the year from 4,109 to 4,647, and the number of factory hands from 29,879 to 32,387. This increase is partly due to a more complete registration of small establishments.

The other topics treated in the report are of local interest.

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, will be continued in successive issues, dealing with the decisions as they occur. All material parts of the decisions are reproduced in the words of the courts, indicated when short by quotation marks and when long by being printed solid. In order to save space immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—*Texas Central Ry. Co. v. Frazier. 34 Southwestern Reporter, page 664.*—Suit was brought in the district court of Hamilton County, Tex., by Etta Frazier, widow of J. W. Frazier, for herself and minor child, Freddie Frazier, against the Texas Central Railway Company to recover damages for the death of her husband. From a judgment in her favor the railway company appealed the case to the court of civil appeals of the State, which rendered its decision March 4, 1896, and affirmed the judgment of the lower court. The opinion of said court was delivered by Judge Key, and the following, containing a statement of the facts in the case, is quoted therefrom:

On the 15th of April, 1893, a freight train was wrecked on appellant's road near the town of Aquilla, in Hill County, Tex., one result of which was the death of appellee's husband, J. W. Frazier, who was employed and serving as a brakeman on said train.

That appellee was the wife of J. W. Frazier; that the minor, Freddie Frazier, was their only child; that the wreck occurred at the time and place alleged; and that J. W. Frazier was a brakeman on the train, and received injuries in the wreck, which caused his death in a few hours thereafter, were clearly shown, and these facts are not disputed. But appellant's contention is that the testimony fails to show the alleged negligence of the engineer, and fails to show that said engineer, if negligent, was other than a fellow-servant of J. W. Frazier, for whose negligence appellant would not be responsible. It is also contended that the death of Frazier resulted from one of the ordinary risks of the service in which he was engaged, and, therefore, that appellant is not liable.

As to the question of negligence on the part of the engineer, it may be that, if we were trying the case as jurors, we should reach a different conclusion, and return a different verdict; but, after a careful consideration of the statement of facts, we can not say that the verdict is without evidence to support it. By the verdict under consideration, twelve men, presumably disinterested and honest, have decided that on the occasion in question the engineer did not exercise all the care that a person of ordinary prudence would have exercised; and that decision is not so clearly unsupported by testimony as to justify us in *setting it* aside.

The act approved March 10, 1891, defining who are and who are not fellow-servants, declares "that all persons engaged in the service of any railway corporations, foreign or domestic, doing business in this State, who are intrusted by such corporation with the authority of superintendence, control, or command of other persons in the employ or service of such corporation, or with the authority to direct any other employee, are vice principals of such corporation, and not fellow-servants with such employee." (Laws 22d Leg., p. 25.) The evidence in this case shows that Neal, the engineer, had authority from appellant to direct the deceased, who was head brakeman, to put on the brake, and that it was the duty of the deceased to obey such direction. This made the engineer a vice principal, under the statute above cited, and the doctrine of fellow-servants does not apply.

As to the question of Frazier's assumption of risk, it is sufficient to say that, while it is true that he assumed the risks ordinarily incident to his employment as brakeman, such assumption would not shield appellant from injuries resulting from its negligence; and, under the court's charge, the jury were not authorized to find for the plaintiff unless they found that the engineer was guilty of negligence in the respect charged, and that he was appellant's vice principal.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—ANNULMENT OF STATUTE BY ADOPTION OF CONSTITUTION—*Crisswell v. Montana Cent. Ry. Co. 44 Pacific Reporter, page 525.*—This case was originally brought in the district court of Cascade County, Mont., by Charles G. Crisswell against the railroad company to recover damages for injuries received while in the company's employ. A verdict was rendered for the plaintiff and the defendant appealed the case to the supreme court of the State, which rendered its decision November 25, 1895, and affirmed the judgment of the lower court. Said decision was reported in 42 Pacific Reporter, page 767, and was published in part on page 433 of Bulletin No. 4 of the Department of Labor, issued in May, 1896. Subsequently the supreme court granted a rehearing in the case upon the question as to what effect section 11 of article 15 of the State constitution had upon the statute (section 697 of the Compiled Statutes of 1887) on which the former decision in the case hinged. Section 697 of the Compiled Statutes of 1887 reads as follows:

That in every case the liability of the corporation to a servant or employee acting under the orders of his superior shall be the same in case of injury sustained by default or wrongful act of his superior, or to an employer not appointed or controlled by him, as if such servant or employee were a passenger.

The material part of section 11 of article 15 of the constitution of the State is as follows:

And no company or corporation formed under the laws of any other country, State or Territory, shall have, or be allowed to exercise, or enjoy within this State any greater rights or privileges than those possessed or enjoyed by corporations of the same or similar character created under the laws of the State.

Upon this rehearing the supreme court rendered its decision April 13, 1896, reversing its former decision and declaring that section 697 was annulled by section 11 of article 15 of the constitution.

The opinion of said court was delivered by Judge Hunt, and in the course of the same he states, in effect, that section 697 of the Compiled Statues is to be found first as section 20 of "An act to provide for the formation of railroad corporations in the Territory of Montana," passed over the governor's veto on May 7, 1873 (Laws Mont., 1873, ex. sess., p. 93 et seq.), and that an examination of the various sections of the act, taken in connection with its title above quoted, showed that the act applied to domestic railroad corporations only. The judge then continues, and the following is quoted therefrom:

Holding, therefore, that section 697 applied to domestic railroad corporations only, what effect did the adoption of the constitution have upon that section? No comment is necessary to demonstrate that a rule of liability by which a domestic railroad company may suffer heavily for negligence of an employee, where another, but foreign, railroad corporation can not be made liable at all for like negligence, is the imposition of a burden upon the former, and not upon the latter. Whether the legislature of the State may impose such different burdens is immaterial to the question under consideration. Without deciding that question, it may be here assumed they can. Still, our examination will not go beyond the point of ascertaining whether the constitution by section 11, article 15, supra, has annulled section 697, or whether it has extended it so that it has become applicable to all railroad companies, foreign and domestic.

The learned counsel for the respondent argues that section 11 is self-executing. We agree with him in that contention, but not to the extent he would apply the doctrine of self-execution. The prohibition lays down a principle of protection to domestic corporations that at once, upon the adoption of the constitution and the admission of the State, became a sufficient rule by means of which the rights and privileges possessed, by domestic companies were and are protected against legislative or other discriminations extending the possession or enjoyment of rights or privileges to foreign corporations greater than those already possessed or those that may be attempted to be granted by any future action. To this extent the provision was completely self-executing, and no legislation was required to give the prohibition full force and operation. Cooley, Const. Lim., p. 99.

But we can not assent to respondent's position that the object of the constitutional provision was to establish uniformity with respect to the two classes of corporations by making laws that were applicable only to the domestic class at the time of the adoption of the constitution extend to the foreign class, in order to make an equal liability for all, or that the clause does establish uniformity by so operating upon such Territorial laws. As said, the inhibition at once, by itself, prevented the discriminations; but there is no affirmative language, and no intent, by the words used, to extend to foreign companies the burdens, rights, and privileges imposed or granted by law to domestic corporations. In this respect legislation must be had to affect such corporations by force of law. By section 1 of the schedule of the constitution all laws enacted by the legislative assembly of the Territory and in force at the time the State was admitted into the Union, and not

inconsistent with the constitution, should be and remain in full force as the laws of the State until altered or repealed, or until expired by their own limitation. This provision is likewise self-executing. By it, rights were preserved. It operated of itself to keep in force a system of laws for the government of the State, unless such laws were inconsistent with the constitution. But, as to any such repugnant statutes, it operated as an effective repeal, for, when the constitution became the fundamental law, acts in conflict with it yielded, and when the question of a conflict is presented to the court, and the conflict clearly appears, the statute must be decided to be inoperative and void. Cooley, Const. Lim., p. 58. As the supreme court of Illinois has very recently said, by way of repetition of one of its earlier decisions:

"The understanding with all persons is that a law passed, either before or after the adoption of the constitution, which is repugnant to its provisions, must be held to be of no valid force, and precisely as if it had been repealed before the performance of the act." Washington Home of Chicago *v.* City of Chicago, 157 Ill. 414, 41 N. E., 893.

From these views it follows that the prohibition clause against any discrimination against a domestic corporation is self-executing as a prohibition but not as an affirmative imposition upon or securement to foreign companies of the rights or privileges expressly only accorded by the State laws to domestic companies. It also follows that by section 697 a greater burden was put upon appellant than was placed upon a foreign company of a similar character. The statute therefore, being inconsistent with the constitution, was annulled by the adoption of the constitution.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—FELLOW-SERVANTS—*Gulf, C. and S. F. Ry. Co. v. Warner. 35 Southwestern Reporter, page 364.*—This action was brought by Charles C. Warner against the Gulf, Colorado and Santa Fe Railway Company to recover damages for injuries received by the plaintiff while in the employ of said company. Judgment was given for the plaintiff in the lower court, and the defendant appealed to the court of civil appeals of Texas, and said court certified the case to the supreme court of the State, which rendered its decision April 27, 1896.

The opinion of the supreme court was delivered by Judge Denman, and contains a statement of the facts in this case, and a clear and definite interpretation of the fellow-servants act of 1893 (chap. 91, acts of 1893), which repealed the fellow-servants act of 1891 (chap. 24, acts of 1891), and upon which the result of this action hinged.

Said opinion, practically in full, reads as follows:

The court of civil appeals have certified to this court a question and explanatory statement, as follows:

"On the 7th day of October, 1893, appellee, an employee of appellant, at that time, while engaged with his duties as switchman in the railroad yards of appellant, in Cleburne was injured by a car passing over and crushing his leg. The car that inflicted the injury was being pushed by a locomotive in charge of a switch engineer, who was an employee of appellant, and while switching was being done by a switch crew of which both appellee and the switch engineer were members.

The switch crew consisted of a foreman, the engineer, the fireman, and switchmen. The foreman directed the switching, as it was his duty to do. The engineer had no authority or control over the switchmen. The switchmen were in the transportation department, and the switch engineer in the mechanical department. The yard master employed and discharged the switchmen, and the master mechanic employed and discharged the engineers. The duties of an engineer require skilled labor, and the duties of a switchman do not.

"On motion: Was the switch engineer a fellow-servant of the switchman who was injured, under the provisions of the fellow-servants act of 1893?"

The act referred to, as far as it affects the question certified, is as follows:

"An act to define who are fellow-servants, and who are not fellow-servants, and to prohibit contracts between employer and employees, based upon contingency of the injury or death of the employees, limiting the liability of the employer for damages.

"SECTION 1. *Be it enacted by the legislature of the State of Texas*, That all persons engaged in the service of any railway corporation, foreign or domestic, doing business in this State, or in the service of a receiver, manager, or of any person controlling or operating such corporation, who are intrusted by such corporation, receiver, or person in control thereof, with the authority of superintendence, control, or command of other persons in the employment of such corporation, or receiver, manager, or person in control of such corporation, or with the authority to direct any other employee in the performance of the duty of such employee, are vice principals of such corporation, receiver, manager, or person controlling the same, and are not fellow-servants of such employee.

"SEC. 2. That all persons who are engaged in the common service of such railway corporation, receiver, manager, or person in control thereof, and who, while so employed, are in the same grade of employment, and are working together at the same time and place, and to a common purpose, neither of such persons being intrusted by such corporation, receiver, manager, or person in control thereof, with any superintendence or control over their fellow-employees, or with the authority to direct any other employee in the performance of any duty of such employee, are fellow-servants with each other: *Provided*, That nothing herein contained shall be so construed as to make employees of such corporation, receiver, manager, or person in control thereof, fellow-servants with other employees engaged in any other department or service of such corporation, receiver, manager, or person in control thereof. Employees who do not come within the provisions of this section shall not be considered fellow-servants." Gen. Laws, 1893, p. 120.

It will be observed that the caption of the act declares its purpose to be "to define who are fellow-servants and who are not fellow-servants," and that section 2 completely accomplishes such purpose by first defining who are fellow-servants, and then declaring that "employees who do not come within the provisions of this section shall not be considered fellow-servants." This section divides all employees into fellow-servants, and nonfellow-servants, and gives the distinctive characteristics of the former, but not of the latter. The purpose of the statute was accomplished by limiting and definitely determining the employees who should thereafter be classed as fellow-servants, for whose negligence the employer should not be responsible to another fellow-servant; and

within this statutory definition of fellow-servants, for the employer would be responsible for their negligence, whether they be termed agents, vice principals, or otherwise.

The distinctive characteristics prescribed by the statute as essential to be found concurring and common to two or more employees in order to constitute them fellow-servants are: First. They must be "engaged in the common service." As here used, "service" means the thing or work being performed for the employer at the time of the accident, and out of which it grew, and "common" means that which pertains equally to the employees sought to be held fellow-servants; and, therefore, "common service" means the particular thing or work being performed for the employer, at the time of the accident, and out of which it grew, jointly, by the employees sought to be held fellow-servants.

The members of a crew running a train, though each be in the performance of different acts in reference thereto, are all "engaged in the common service," for they are jointly performing the thing or work of managing the train for the employer; but they would not be "engaged in the common service" with the members of a crew running another train for the employer over the same road, for one crew would be jointly performing the thing or work of managing one train, while the other would be jointly performing the thing or work of managing the other train. We therefore conclude that the engineer and switchman were "engaged in the common service."

Second. They must be "in the same grade of employment." "Grade" means the rank or relative positions occupied by the employees while "engaged in the common service." This definition, however, gives us no certain means of determining whether given employees are in the same or different grades, for it furnishes no test by which their respective ranks or relative positions "in the common service" can be ascertained. In the absence of a statutory test, the grade would have depended upon the test which might have been adopted by the courts, such as authority one over the other, order of promotion, skill in the service, compensation received, etc. We are of the opinion that the legislature anticipated and settled this difficulty in the construction of the word "grade" by the use of the clause, "neither of such persons being intrusted * * * with any superintendence or control over their fellow-employees," etc., as explanatory of what was meant by the clause "in the same grade;" thus adopting the most natural test of grade in the construction of the statute, authority one over the other while "engaged in the common service." Probably the most serious difficulty in arriving at the conclusion that one clause was intended as merely explanatory of the other is the fact that the explanatory clause does not immediately follow the one it explains; but this objection is removed when we consider that, in the original section, as enacted in 1891, the qualifying clause immediately follows the words "same grade," and was evidently intended to explain their meaning. Since the engineer had no authority or control over the switchman, and vice versa, while "engaged in the common service," we conclude that they were "in the same grade of employment."

Third. They must be "working together at the same time and place." While "at" indicates nearness in time and place, it does not demand an exact coincidence as to either, but only that it shall be sufficiently so to afford the employees a reasonable opportunity of observing the conduct of each other, with a view of guarding themselves against injury therefrom. We are of the opinion that the engineer and switchman were working together at the same time and place at the time of the accident,

Fourth. They must be working "to a common purpose." By this is meant that the acts required of each in the performance of his duties at the time of the accident must be in furtherance of "the common service." We are of the opinion that the engineer in managing the engine, and the switchman in performing his duties, both having in view the switching of the cars, were working to a "common purpose." When these four distinguishing characteristics are found concurring and common to two or more employees, they must be held fellow-servants under the statute; otherwise, not.

It is urged that the proviso adds, as another distinguishing characteristic, that they must be in the same department. A proviso may be inserted for the purpose either of adding something to, or of insuring a certain construction of, the preceding language of the statute. This proviso bears upon its face unmistakable evidence of having been inserted for the latter purpose. It says: "Provided nothing herein contained shall be so construed as to make employees * * * fellow-servants with other employees engaged in any other department or service," and to complete the idea we may add the words "than the common service" above specified. The words "department or service," as here used, merely means a subdivision of business, as running a train, clearing away a wreck, repairing a track, etc., and, if employees are, at the time of the accident, engaged in the same subdivision of business, they are also "engaged in the common service," as we have hereinbefore construed that term. In other words, the proviso was merely intended to insure the strict construction above given by us to the words "engaged in the common service." In so far as section 1 of the act bears upon the question of "who are fellow-servants and who are not fellow-servants," we can not see that it adds anything to section 2. It merely selects a certain class of employees, who are non-fellow-servants under the terms of section 2, and declares that they are vice principals. It results that we must answer the question certified in the affirmative.

WEIGHING COAL AT MINES—CONSTITUTIONALITY OF STATUTE—*Harding et al. v. People. 43 Northeastern Reporter, page 624.*—William Harding and another were convicted of a crime in the circuit court of Vermilion County, Ill., and brought their case before the supreme court of the State on a writ of error. Said court rendered its decision March 30, 1896, and reversed the judgment of the lower court. The facts in the case are given in the opinion of the supreme court, delivered by Judge Cartwright, which reads as follows:

Plaintiffs in error were indicted and convicted for a violation of the act requiring the weighing of coal at mines, in force July 1, 1887, as amended by act in force July 1, 1891. Some of the counts upon which they were found guilty charged them with a failure to weigh all the coal delivered from the mine, and others charged them with not keeping a correct record of the weight of each miner's car. The portion of the act under which the prosecution was had, material to the same, is as follows:

"SECTION 1. That the owner, agent, or operator of every coal mine in this State at which miners are paid by weight, shall provide at such mines suitable and accurate scales of standard manufacture for the

"SEC. 2. All coal so delivered from such mines shall be carefully weighed upon the scales as above provided, and a correct record shall be kept of the weight of each miner's car, which record shall be kept open at all reasonable hours for the inspection of all miners or others pecuniarily interested in the product of such mine. The person designated and authorized to weigh the coal and keep such record shall, before entering upon his duties, make and subscribe to an oath before some magistrate or other officer authorized to administer oaths, that he will accurately weigh and carefully keep a true record of all coal delivered from such mine, and such oath shall be kept conspicuously posted at the place of weighing.

"SEC. 5. Any person, owner or agent, operating a coal mine in this State who shall fail to comply with all the provisions of this act, or who shall obstruct or hinder the carrying out of its requirements, shall be fined for the first offense not less than fifty dollars ($50) nor more than two hundred dollars ($200); for the second offense not less than two hundred dollars ($200) nor more than five hundred dollars ($500); and for a third offense not less than five hundred dollars ($500), or be imprisoned in the county jail not less than six months nor more than one year: *Provided*, That the provisions of this act shall apply only to coal mines whose product shall be shipped by rail or water."

The constitutionality of this act is challenged by plaintiffs in error, and this is the only question that will be considered, although the application of the statute to this case is disputed, and questions of variance and of error in giving and refusing of instructions are also raised. It is objected that the act is in violation of section 2 of article 2 of our constitution, which provides that no person shall be deprived of life, liberty, or property without due process of law, because it singles out operators of one class of coal mines and imposes restrictions upon them not required to be borne by operators of other mines, or by persons engaged in other business, and also by interfering with the right of employer and laborer to contract with each other. The Consolidated Coal Company had owned and operated the mine where plaintiffs in error were employed for six or seven years. The greater part of its product was shipped from the mine by rail, on the Wabash Railroad, and sold in other markets. All the coal so shipped was correctly weighed on scales of standard manufacture by the company, at the mine, before being dumped into the railroad cars, and a correct record was made of the weight of each miner's car, and that record was posted and kept open at all reasonable hours for the inspection of the miners or any person interested. During this time the company had also furnished the Wabash Railroad Company with coal for its locomotives, which was delivered at the mine, into tenders of the locomotives, as they stopped there for coal. There were about 250 miners employed, and the average output of the mine was from 700 to 950 tons of screened coal per day. The miners were paid 55 cents per ton for screened coal. About the last 100 miners' cars that came up in the evening of each day would be placed on the storage tracks, for the purpose of coaling the locomotives during the night and the next day. This last coal was not weighed, but each miner was given the average weight of the cars sent up by him and weighed during the day as the weight of his last car, crediting him with the average weight of the cars mined by him that day that had been actually weighed. By the act under consideration its provisions are applied only to coal mines whose produce is shipped by rail or water, and the learned attorney-general and counsel for the people construe the provision as making

the law applicable to each mine where the major portion of its product is so shipped. However that may be, it is plain that the act not only singles out the operator of a mine, and imposes restrictions and burdens upon him as to the use and enjoyment of his property that are not imposed upon other branches of business similarly situated and conducted, but it divides the operators of mines and only applies its provisions to those whose product is shipped in a certain manner. In the various constitutions the phrases "due process of law" and "the law of the land" are used interchangeably, sometimes one being employed and sometimes the other; but they are synonymous, and the meaning is the same in every case. Cooley, Const. Lim., 353. In Millett *v.* People, 117 Ill., 294, 7 N. E., 631, it was said of this phrase, "And this means general public law, binding upon the members of the community, under all circumstances, and not partial or private laws, affecting the rights of private individual or classes of individuals," citing James *v.* Reynolds, 2 Tex., 251; Wynehemer *v.* People, 13 N. Y., 376; Vanzant *v.* Waddel, 2 Yerg., 269. And the same declaration was made in Frorer *v.* People, 141 Ill., 171, 31 N. E., 395, where the statute prohibiting engaging in keeping a truck store was held unconstitutional, and in Braceville Coal Co. *v.* People, 147 Ill., 66, 35 N. E., 62, where the same conclusion was reached as to an act to provide for the weekly payment of wages by a corporation.

The right to enact such a statute does not arise out of the police power, where much latitude is allowed in determining what may tend to insure the comfort, safety, or welfare of society; and it is not authorized by section 29 of article 4 of the constitution, providing for laws to secure safety to coal miners. Millett *v.* People, supra. Each person subject to the laws has a right that he shall be governed by general public rules. Laws and regulations entirely arbitrary in their character, singling out particular persons not distinguished from others in the community by any reason applicable to such persons, are not of that class. Distinctions in rights and privileges must be based upon some distinction or reason not applicable to others. In Braceville Coal Co. *v.* People, supra, it is said: "And it is only when such distinctions exist that differentiate in important particulars, persons or classes of persons from the body of the people, that laws having operation only on such particular persons or classes of persons have been held to be valid enactments." No possible reason or distinction affecting any interest, justifying the division of mines made by the act, has been suggested, except that it might be intended to reach mines in which the larger number of miners were employed. But this is not the division or distinction made, and does not in any manner follow from such division. It is not the language or purport of the act, and, if such had been the intention of the legislature, it would certainly have been made manifest by basing the division or distinction upon the number of miners employed. The act applies equally to the owner of a small mine, where the product may not exceed a carload per day, and the owner of a mine such as that of the Consolidated Coal Company. The distinction is based solely upon the fact of the product being shipped by rail or water, and counsel have been able to suggest no reason why the legislature should require the product of such a mine to be weighed in the manner specified, and not that of another mine where the product is sold on the spot. The distinction between operators who sell their product at the mine to some shipper, who ships it away to the market, and those who themselves ship their coal by rail or water, is

cable to the other; and special burdens and restrictions upon one class, not imposed upon the other, constitute an arbitrary deprivation of rights. As the act makes that an offense, if committed by a person engaged in one branch of mining, which, if done by persons in another branch of the same business, is lawful, without any reason for distinction between the two, we must regard it as unconstitutional.

In Millett *v.* People, supra, and Ramsey *v.* People, 142 Ill., 380, 32 N. E., 364, where provisions similar to those of the act now under consideration were held to be unconstitutional and void, the general right of the laborer and employer to contract in regard to the price of labor, and the method of ascertaining the price, was asserted; and the rule was laid down that any restriction upon that right is a deprivation of both liberty and property within the meaning of the constitutional provision. In view of the discussion of the principles involved in those cases, no extended statement of them will be necessary here. This act makes it an offense against the law for the employer and laborer, at any coal mine at which the miners are paid by weight, to determine upon the weight of any miner's car, or any lot of coal, by any other method than that pointed out by the statute. A failure to weigh a car, and to keep a correct record of the weight, renders the operator liable to the penalties prescribed by the act, although he and the laborer may have agreed upon the weight of the car, or contracted for other methods of determining the weight. This is well illustrated by the facts of this case. The last cars that came up in the evening of each day, designed for coaling the locomotives, would not be weighed until the coal was dumped into the tenders, so that the miners could not obtain the weights until the next day, and they wanted them the same evening. For this reason, and at the instance of the miners, it has been the custom for six years to give each miner the weight according to the system above stated. When the company attempted to change this system and weigh the coal, the miners objected, and insisted upon the custom of averaging weights. No objection was ever made by any miner to this manner of arriving at the weight, instead of weighing the cars on the scales. Here was an arrangement, amounting to a contract between the parties, with which all the contracting parties were satisfied, and the testimony upon which plaintiffs in error were convicted came from miners who left during the miners' strike of 1894, and were not again employed by the company. It seems that a law which deprives men engaged in the business of mining from contracting with each other for the purpose of ascertaining the weight of the coal mined, or the amount due them, in any manner mutually satisfactory, can not be sustained. That such is the effect of this law is the contention of counsel for the people, and it is only upon the assumption that the law does so control the power to contract that a conviction could have been had in this case; for, as already seen, the parties had contracted otherwise. This act takes away the freedom of contracting by the parties for the ascertainment of the weight of coal, except by a certain method; and, in our opinion, it is unconstitutional. The judgment will be reversed, and the cause remanded, with direction to the circuit court to discharge the defendants. Judgment reversed.

DECISIONS UNDER COMMON LAW.

CONSPIRACY—BOYCOTTS—*Oxley Stave Co. v. Coopers' International Union of North America et al. 72 Federal Reporter, page 695.*—This case was brought in the United States circuit court for the district of Kansas by a bill in equity filed by the Oxley Stave Company against

the Coopers' International Union of North America, Lodge No. 18, of Kansas City, Kans., the Trades Assembly of Kansas City, Kans., and various individuals named, who are officers and members of such organizations, and also against "all other persons who may be members of either of said organizations, their agents, attorneys, etc.," to enjoin them from inaugurating and maintaining a boycott against the use of packages, casks, barrels, etc., made by complainant by means of certain machines constituting part of its plant. The circuit court rendered its decision March 9, 1896, and allowed the injunction asked for. The opinion of said court was delivered by District Judge Foster, and the following is quoted therefrom:

This brings us to the question whether, under the allegations of the bill, which is verified, and the other evidence presented, the complainant is entitled to the relief prayed for. The material allegations of the bill are but partially controverted by the defendants. Indeed, they are substantially admitted. Much testimony was offered to show that barrels hooped by machinery were not as serviceable or as valuable as hand-hooped barrels. It also appears that there is some little difference in the price of such barrels; that a skilled workman can hoop 14 to 16 barrels per day by hand, and that the hooping machine does the work of about six or seven men; and that boys or young men, from 16 years upward, are employed, to some extent, in operating the machines. All of this cuts but little figure in the case. Whether the work of the machine is better or worse than the hand work is not material. The barrels are made and sold as machine work, and a price fixed accordingly, and the customer must decide whether or not he will buy them; and the complainant, in operating the machines in its business, is engaged in a legitimate enterprise, and defendants had no legal right to demand that it should cease operating them. There is some testimony tending to show that the reason the packing companies had not made contracts for these barrels for this year was not on account of the threatened boycott, but because they preferred hand-hooped barrels. The purchasing agent of Fowler Sons & Co., Limited (Robert McWhittaker), however, testified that a committee of the Coopers' Union and Trades Assembly notified him, if his company purchased machine-made barrels, they would boycott the contents of the barrels, and that such notice would tend to make his company very careful about purchasing machine-made barrels. The manager of Swift & Co. testified that his company was buying hand-made barrels on account of the threatened boycott. The following is a copy of the resolution of the Trades Assembly on the subject, and indicates the purpose of the defendant associations:

"To the officers and members of the Trades Assembly, greeting: Whereas, the cooperage firms of J. R. Kelley and the Oxley Cooperage Company have placed in their plants hooping machines operated by child labor; and whereas, said hooping machines is the direct cause of at least one hundred coopers being out of employment, of which a great many are unable to do anything else, on account of age,—at a meeting held by Coopers' Union No. 18 on the 31st of December, 1895, a committee was appointed to notify the above firms that unless they discontinued the use of said machines on and after the 15th of January, 1896, that Coopers' Union No. 18 would cause a boycott to be placed on all packages hooped by said machines, the 15th of January, 1896; and at

delegates were authorized to bring the matter before the Trades Assembly in proper form, and petition the Assembly to indorse our action, and to place the matter in the hands of their grievance committee, to act in conjunction with a committee appointed by Coopers' Union No. 18 to notify the packers before letting their contracts for their cooperage. Therefore, be it resolved, that this Trades Assembly indorse the action of Coopers' Union No. 18, and the matter be left in the hands of the grievance committe for immediate action.

"Yours, respectfully,

"J. L. COLLINS,

"*Secretary Coopers' International Union of N. A., Lodge No. 18.*"

James Cable, president of Coopers' Union, testified as follows:

Unless complainant ceased using the machines—

"That the boycott would be declared by the Coopers' Union upon the contents of the tierces and barrels hooped by machinery; meaning thereby that the members of the said Coopers' Union, and of its parent association, the Trades Assembly, would thereafter cease to purchase or use any of the commodities that were packed in machine-hooped tierces or barrels."

No one can question the right of the defendants to refuse to purchase machine-made packages, or of goods packed in them, or, by fair means, to persuade others from purchasing or using them. If that is all that is implied by a boycott, as insisted by defendants, it is difficult to see where they violate any law, although it might injure the complainant's business. It has been decided, however, that while such action would not be unlawful by an individual, a combination and conspiracy to accomplish the purpose would be an illegal act. In Arthur *v.* Oakes, 11 C. C. A., 209, 63 Fed., 321, 322, Mr. Justice Harlan says:

"It is one thing for a single individual, or for several individuals, each acting upon his own responsibility, and not in cooperation with others, to form the purpose of inflicting actual injury upon the property or rights of others. It is quite a different thing, in the eye of the law, for many persons to combine or conspire together with the intent not simply of asserting their right of accomplishing lawful ends by peaceable methods, but of employing their united energies to injure others or the public. An intent upon the part of a single person to injure the rights of others or of the public is not in itself a wrong of which the law will take cognizance, unless some injurious act be done in execution of the unlawful intent. But a combination of two or more persons with such intent, and under circumstances that give them, when so combined, a power to do an injury they would not possess as individuals acting singly, has always been recognized as in itself wrongful and illegal."

The term "boycott" has acquired a significance in our vocabulary, and in the literature of the law. The resolution of the defendant associations says, unless complainant discontinue the use of said machines on and after January 15, 1896, that Coopers' Union No. 18 would cause a boycott to be placed on all packages hooped by said machines. Just what action would be taken, the resolution does not state. It does not say the defendants would not purchase the packages, or the goods packed in them, but simply says a "boycott" would issue. That term implies that a general proscription of all articles so manufactured, and the goods packed in them, would be inaugurated and maintained by the power of these assemblies, wherever they could reach. It is fair to presume, from the resolution and other testimony, that the defendants

were determined to use all means, short of violence, to make the proscription effective. That has been the history of such proceedings in the past, and such is the meaning imputed to the use of the word "boycott." It has become a word carrying with it a threat and a menace, and was evidently so intended by this resolution. In Thomas *v.* Railway Co., 62 Fed. 818–821, the court says:

"But the combination was unlawful, without respect to the contract feature. It was a boycott."

Again the court says:

"The combination under discussion was a boycott. It was so termed by Debs, Phelan, and all engaged in it. Boycotts, although unaccompanied by violence, have been pronounced unlawful in every State of the United States where the question has arisen, unless it be in Minnesota, and they are held to be unlawful in England."

The court further says:

"Boycotts have been declared illegal conspiracies in State *v.* Glidden, 55 Conn. 46, 8 Atl. 890; in State *v.* Stewart, 59 Vt. 273, 9 Atl. 559; Steamship Co *v.* McKenna, 30 Fed. 48; Casey *v.* Typographical Union, 45 Fed. 135; Toledo A. A. & N. M. Ry. Co. *v.* Pennsylvania Co. 54 Fed. 730, and in other cases."

From these authorities we reach the conclusion that complainant is entitled to the relief prayed for. The labor-saving machines which modern invention has brought into every industry in life excite our wonder and admiration, but our enthusiasm is subdued by the thought that the machines must largely drive the skilled laborer out of a field he has spent years to fit himself for, and upon which, more or less, depends the means of livelihood for himself and his family; and yet it is a hopeless task for the laborer to contend against the use of machinery, wherever it can be utilized. Labor can only adjust itself to the constant progress made in all the mechanical pursuits, and it has been well said that, despite all the inventions to save hand work, there never was a time when the laborer was paid better, or had greater advantages, than he has to-day. The injunction will be allowed as prayed for by complainant.

CONSPIRACY—UNLAWFUL COMBINATIONS—*Elder et al. v. Whitesides et al. 72 Federal Reporter, page 724.*—This case was brought by a bill in equity filed in the United States circuit court for the eastern district of Louisiana by Elder, Dempster & Co., of Liverpool, England, owners of certain steamboats, against William Whitesides and others, citizens of Louisiana. The bill alleged the existence of an unlawful combination and conspiracy, on the part of the defendants, to prevent the loading or unloading of complainants' steamboats at Gretna, La., except by such labor as might be acceptable to said defendants; that such combination and conspiracy absolutely prevented complainants from loading or unloading their steamers at said port of Gretna by other than the said defendants and their confederates. An injunction was asked restraining the defendants from continuing their said combination and conspiracy. The court rendered its decision March 22,

The opinion of the court was delivered by District Judge Parlange, and the following is quoted therefrom:

The defendants have been granted all the time which they have requested to present their side of the case. The argument made by their counsel may be divided under four heads. He urged: First, that there is no allegation or proof of any overt act committed by the defendants against the particular vessel mentioned in the bill; second, that a court of equity can not enjoin crime; third, that no damages have actually been inflicted upon the vessel; and, fourth, that the proof of conspiracy is insufficient.

In a recent case decided by the United States circuit court of appeals, seventh circuit (Arthur *v.* Oakes, 11 C. C. A., 209; 63 Fed., 310), in which Mr. Justice Harlan was the organ of the court, all the law points made by the counsel for the defendants have been passed upon, clearly and distinctly. In speaking of combinations and conspiracies, Mr. Justice Harlan said:

"According to the principles of the common law, a conspiracy upon the part of two or more persons, with the intent by their combined power, to wrong others, or to prejudice the rights of the public, is in itself illegal, although nothing be actually done in the execution of such conspiracy. This is fundamental in our jurisprudence. So, a combination or conspiracy to procure an employee or body of employees to quit service, in violation of the contract of service, would be unlawful, and, in a proper case, might be enjoined, if the injury threatened would be irremediable in law. It is one thing for a single individual or for several individuals, each acting upon his own responsibility, and not in cooperation with others, to form the purpose of inflicting actual injury upon the property or rights of others. It is quite a different thing, in the eye of the law, for many persons to combine or conspire together with the intent, not simply of asserting their rights or of accomplishing lawful ends by peaceable methods, but of employing their united energies to injure others or the public. An intent upon the part of a single person to injure the rights of others or of the public is not in itself a wrong of which the law will take cognizance, unless some injurious act be done in execution of the unlawful intent. But a combination of two or more persons with such an intent, and under circumstances that give them, when so combined, a power to do an injury they would not possess as individuals acting singly, has always been recognized as in itself wrongful and illegal."

The justice cites approvingly the language of another court, as follows:

"There is nothing in the objection that to punish a conspiracy where the end is not accomplished would be to punish a mere unexecuted intention. It is not the bare intention that the law punishes, but the act of conspiring, which is made a substantive offense by the nature of the object to be affected." State *v.* Buchanan, 5 Har. and J., 317.

The justice further said:

"The authorities all agree that a court of equity should not hesitate to use this power [injunction] when the circumstances of the particular case in hand require it to be done in order to protect rights of property against irreparable damages by wrongdoers. * * * That some of the acts enjoined would have been criminal, subjecting the wrongdoers to actions for damages or to criminal prosecution, does not, therefore, in itself determine the question as to interference by injunction. If the acts stopped at crime, or involved merely crime, or if the injury threatened could, if done, be adequately compensated in damages,

equity would not interfere. But as the acts threatened involve irreparable injury to and destruction of property for all the purposes for which the property was adapted, as well as continuous acts of trespass, to say nothing of the rights of the public, the remedy at law would have been inadequate. 'Formerly,' Mr. Justice Story says, 'courts of equity were extremely reluctant to interfere at all, even in regard to cases of repeated trespasses. But now there is not the slightest hesitation, if the acts done or threatened to be done to the property would be ruinous, irreparable, or would impair the just enjoyment of the property in future. If, indeed, courts of equity did not interfere in cases of this sort, there would, as has been truly said, be a great failure of justice in this country.'"

So far as the question of jurisdiction is concerned, it is clearly settled, both by Arthur *v.* Oakes, supra, and by the decision of the United States circuit court of appeals of this (the fifth) circuit. Hagan *v.* Blindell, 6 C. C. A., 86; 56 Fed., 696. In both of those cases the jurisdiction depended entirely, as in the case at bar, upon the diverse citizenship of the parties and the equitable powers of the court.

The decisions above referred to clearly dispose of all the law points raised by defendants' counsel. The proof of conspiracy is made out by the affidavits offered by complainants. The only proof offered by the defendants is their affidavit, which confines itself to a denial that they interfered with the complainants or prevented the loading of the vessel *Niagara*, or caused damages to the complainants. This seems to be in line with the argument of their counsel, and to be based upon the theory that the jurisdiction of the court depends upon unlawful overt acts having been committed against the particular vessel mentioned in the bill, and upon actual damages having been caused the complainants, prior to the application for the injunction. (There is no denial of the agreement or conspiracy to do the unlawful things charged in the bill, which conspiracy is the gravamen of the case.) The preliminary injunction must issue.

EMPLOYERS' LIABILITY—FELLOW-SERVANTS—*Southern Pacific Co. v. McGill. 44 Pacific Reporter, page 302.*—Action was brought in the district court of Pima County, Ariz., by William McGill against the Southern Pacific Company to recover damages for injuries sustained while in the employ of said company. Judgment was rendered for McGill and the company appealed the case to the supreme court of the Territory of Arizona, which affirmed the judgment of the lower court. The court, however, granted a rehearing, and as a result of the same rendered a decision February 10, 1896, reversing the judgment of the lower court. The facts of the case were as follows:

McGill, hereinafter referred to as "the plaintiff," was a section foreman in the employ of the defendant company. He was directed by the roadmaster to go to a point on the track 6 or 7 miles west of a section called "Pantano," and there to grade and lay a track in order to raise an engine which had been derailed. He went there with his men and tools and worked part of a day, when the civil engineer in charge

DECISIONS OF COURTS AFFECTING LABOR.

the train started, and had not gone over three-quarters of a mile when it collided with a passenger train and the plaintiff was seriously injured about the head. The charge was made in the complaint that Barrett, the conductor of the work train, ran the train negligently, and with want of care and attention to his duty, and so caused the accident.

The opinion of the supreme court was delivered by Chief Justice Baker, and contains the following:

The following instruction was given to the jury for the plaintiff: "The court instructs the jury that the conductor of a railway train, who commands its movements, directs when it shall start, at what station it shall stop, and has the general management of it, and control over the persons employed on it, represents the railway company; and is not a fellow-servant with a section foreman in the employ of said company. If the jury believe from the evidence that John Barrett was the conductor of the train upon which plaintiff was, and had the powers just stated regarding such train, the court instructs the jury that Barrett was not a fellow-servant with the plaintiff."

This instruction was not altered, changed, or modified by any instruction subsequently given, and, being objected to and duly assigned as error, constitutes the pivotal point in the case. There is an endless diversity of opinion upon this "fellow-servant" doctrine in the decisions of the various courts in this country. The cases are too numerous to cite, and it would be an idle effort to attempt to reconcile or distinguish them. I can do no better than to deduce one or two propositions applicable to the facts at bar, which the decided weight of all the cases authorizes.

(1) A person entering upon the service of a corporation assumes all the risk naturally incident to his employment, including the dangers which may arise from the negligence of a fellow-servant.

(2) That the master's liability does not depend upon gradations in the employment, unless the superiority of the person causing the injury was such as to make him principal or vice principal.

(3) The liability of the master does not depend upon the fact that the servant injured may be doing work not identical with that of the wrongdoer. The test is, the servant must be employed in different departments, which in themselves are so distinct and separate as to preclude the probability of contact and of danger of injury by the negligent performance of the duties of the servant in the other department.

In the case at bar the plaintiff and Barrett, the conductor, were brought together at the same time and place, and closely associated in the discharge of their respective duties. The very work which the plaintiff engaged to do necessitated the constant use of a train, such as the one in use at the time of the collision, to transport laborers, tools, materials, supplies, etc., to the place of operations; and he must be held to have contemplated its use when he accepted the employment. He was at work when riding upon this train in going to and from the point where the wreck occurred, just as much as he was when he was actually engaged in raising the derailed engine. Both he and the conductor were engaged in a common purpose and object—the clearing of the track and the raising of the fallen engine.

The labors of both contributed to and were intended to effect that immediate and present result. Both had a common master. That there was some gradation—some difference in the work of the two—

within themselves as to preclude the probability of contact and of danger to one servant in one department by reason of the negligence of another servant in another department. This can not be said of the plaintiff's and Barrett's employment.

The plaintiff's labors constantly exposed him to the dangers of running and moving the work train, and he must be held to have assumed the risk of such dangers.

The giving of the instructions quoted was reversible error, since, upon the facts, the conductor of the work train and the plaintiff were fellow-servants. The judgment is reversed and a new trial is ordered.

EMPLOYERS' LIABILITY—FELLOW-SERVANTS—*Northern Pacific R. R. Co. v. Peterson. 16 Supreme Court Reporter, page 843.*—This action was commenced by Peterson in the United States circuit court for the district of Minnesota, fourth division, to recover damages for injuries sustained while in the employ of the railroad company. The facts in the case were as follows:

The plaintiff, a day laborer, was employed on an extra gang, amounting in numbers to thirteen men, with one Holverson as foreman, at a place called "Old Superior," a station on the line of the defendant's road. Holverson had power to employ men, and also to discharge them. The men were taken each morning on hand cars to the place where they were to work during the day, and when the work was finished were brought back.

The members of the gang themselves worked the hand cars, Holverson generally occupying a place on the front hand car and taking care of the brakes. He always went with the gang, superintended their work, even if taking no part in the actual manual labor, and came home with them at the end of the day's labor. When the accident occurred Holverson held his accustomed place on the front hand car, at the brakes, and Peterson was on the same car. While going around a curve in the track Holverson thought he saw some object in front of him and applied the brakes suddenly, in consequence of which the car was abruptly stopped. He gave no warning of his intention, and the rear car was following so closely that it could not stop before running into the car ahead, the result of which was that the first car was thrown from the track, throwing the plaintiff Peterson off the car and injuring his leg by having the rear car run over it. Upon these facts the jury returned a verdict in favor of Peterson, and the case was taken by the railroad company to the United States circuit court of appeals for the eighth circuit upon a writ of error. Said court affirmed the judgment of the court below, and the railroad company then carried the case on writ of error to the United States Supreme Court, which rendered its decision April 13, 1896, reversing the judgments of the lower courts and ordering a new trial.

DECISIONS OF COURTS AFFECTING LABOR.

The opinion of said court was delivered by Mr. Justice Peckham, and the following is quoted therefrom:

The sole question for our determination is whether Holverson occupied the position of fellow-servant with the plaintiff below. If he did, then this judgment is wrong, and must be reversed.

By the verdict of the jury, under the charge of the court, we must take the fact to be that Holverson was foreman of the extra gang for the defendant company, and that he had charge of and superintended the gang in the putting in of the ties, and assisting in keeping in repair the portion of the road included within the three sections; that he had power to hire and discharge the hands in his gang, then amounting to thirteen in number, and had exclusive charge of the direction and management of the gang in all matters connected with their employment; that the plaintiff below was one of the gang of hands so hired by Holverson, and was subject to the authority of Holverson in all matters relating to his duty as laborer. Upon these facts the courts below have held that the plaintiff and Holverson were not fellow-servants in such a sense as to preclude plaintiff recovering from the railroad company damages for the injuries he sustained through the negligence of Holverson, acting in the course of his employment as such foreman.

In the course of the review of the judgment by the United States circuit court of appeals, that court held that the distinction applicable to the determination of the question of a coemployee was not "whether the person has charge of an important department of the master's service, but whether his duties are exclusively those of supervision, direction, and control over a work undertaken by the master, and over subordinate employees engaged in such work, whose duty it is to obey, and whether he has been vested by the common master with such power of supervision and management." Continuing, the court said that "the other view that has been taken is that whether a person is a vice principal is to be determined solely by the magnitude or importance of the work that may have been committed to his charge; and that view is open to the objection that it furnishes no practical or certain test by which to determine in a given case whether an employee has been vested with such departmental control or has been 'so lifted up in the grade and extent of his duties' as to constitute him the personal representative of the master. That this would frequently be a difficult and embarrassing question to decide, and that courts would differ widely in their views, if the doctrine of departmental control was adopted, is well illustrated by the case of Borgman *v.* Railway Co., 41 Fed., 667, 669. We are of the opinion, therefore, that the nature and character of the respective duties devolved upon and performed by persons in the same common employment, should, in each instance, determine whether they are, or are not, fellow-servants, and that such relation should not be deemed to exist between two employees, when the function of one is to exercise supervision and control over some work undertaken by the master which requires supervision, and over subordinate servants engaged in that work, and where the other is not vested by the master with any such power of direction or management." 4 U. S. App., 574, 578; 2 C. C. A., 157; 51 Fed., 182.

The court thereupon affirmed the judgment.

It seems quite plain that Holverson was not the "chief" or "superintendent" of a separate and distinct department or branch of the busi-

is placed upon a company for the negligence of such an officer. We also think that the ground of liability laid down by the courts below is untenable.

The general rule is that those entering into the service of a common master become thereby engaged in a common service, and are fellow-servants; and, prima facie, the common master is not liable for the negligence of one of his servants which has resulted in an injury to a fellow-servant. There are, however, some duties which a master owes, as such, to a servant entering his employment. He owes the duty to provide such servant with a reasonably safe place to work in, having reference to the character of the employment in which the servant is engaged. He also owes the duty of providing reasonably safe tools, appliances, and machinery for the accomplishment of the work necessary to be done. He must exercise proper diligence in the employment of reasonably safe and competent men to perform their respective duties, and it has been held in many States that the master owes the further duty of adopting and promulgating safe and proper rules for the conduct of his business, including the government of the machinery, and the running of trains on a railroad track.

If the master be neglectful in any of these matters, it is a neglect of a duty which he personally owes to his employee, and, if the employee suffer damage on account thereof, the master is liable.

If, instead of personally performing these obligations, the master engages another to do them for him, he is liable for the neglect of that other, which in such case is not the neglect of a fellow-servant, no matter what his position as to other matters, but is the neglect of the master to do those things which it is the duty of the master to perform as such.

In addition to the liability of the master for his neglect to perform these duties, there has been laid upon him by some course a further liability for the negligence of one of his servants in charge of a separate department or branch of business, whereby another of his employees has been injured, even though the neglect was not of that character which the master owed, in his capacity as master, to the servant who was injured. In such case it has been held that the neglect of the superior officer or agent of the master was the neglect of the master, and was not that of the coemployee, and hence that the servant, who was a subordinate in the department of the officer, could recover against the common master for the injuries sustained by him under such circumstances. It has been already said that Holverson sustained no such relation to the company, in this case, as would uphold a liability for his acts based upon the ground that he was a superintendent of a separate and distinct branch or department of the master's business.

It is proper, therefore, to inquire what is meant to be included by the use of such a phrase.

A leading case on this subject in this court is that of Railway Co. *v.* Ross, 112 U. S., 377, 5 Sup. Ct., 184. In that case a railroad corporation was held responsible to a locomotive engineer in the employment of the company for damages received in a collision which was caused by the negligence of the conductor of the train drawn by the engine of which the plaintiff was engineer. This court held the action was maintainable, on the ground that the conductor, upon the occasion in question, was an agent of the corporation, clothed with the control and management of a distinct department, in which his duty was entirely that of direction and superintendence; that he had the entire control and management of the train, and that he occupied a very different *position* from the brakemen, porters, and other subordinates employed

on it; and that he was in fact, and should be treated as, a personal representative of the corporation, for whose negligence the corporation was responsible to subordinate servants. The engineer was permitted to recover on that theory. These facts give some indication of the meaning of the phrase.

In the above case the instruction given by the court at the trial to which exception was taken was in these words: "It is very clear, I think, that if the company sees fit to place one of its employees under the control and direction of another, that then the two are not fellow-servants engaged in the same common employment, within the meaning of the rule of law of which I am speaking." That instruction, thus broadly given, was not, however, approved by this court in the Ross case. Such ground of liability—mere superiority in position, and the power to give orders to subordinates—was denied. What was approved in that case, and the foundation upon which the approval was given, is very clearly stated by Mr. Justice Brewer in the course of his opinion delivered in the case of Railroad Co. *v.* Baugh, 149 U. S., 368, 13 Sup. Ct., 914, at page 380, 149 U. S., and page 914, 13 Sup. Ct., and the following pages. In the Baugh case it is also made plain that the master's responsibility for the negligence of a servant is not founded upon the fact that the servant guilty of neglect had control over, and a superior position to that occupied by, the servant who was injured by his negligence. The rule is that, in order to form an exception to the general law of nonliability, the person whose neglect caused the injury must be "one who was clothed with the control and management of a distinct department, and not a mere separate piece of work in one of the branches of service in a department." This distinction is a plain one, and not subject to any great embarrassment in determining the fact in any particular case. When the business of the master or employer is of such great and diversified extent that it naturally and necessarily separates itself into departments of service, the individuals placed by the master in charge of these separate branches and departments of service, and given entire and absolute control therein, may properly be considered, with respect to employees under them, vice principals and representatives of the master, as fully and as completely as if the entire business of the master were placed by him under one superintendent. Thus, Mr. Justice Brewer in the Baugh case, illustrates the meaning of the phrase "different branches or departments of service" by suggesting that "between the law department of a railway corporation and the operating department there is a natural and distinct separation—one which makes the two departments like two independent kinds of business, in which the one employer and master is engaged. So, oftentimes, there is, in the affairs of such corporation what may be called a manufacturing or repair department, and another strictly operating department. These two departments are, in their relations to each other, as distinct and separate as though the work of each was carried on by a separate corporation. And from this natural separation flows the rule that he who is placed in charge of such separate branch of the service—who alone superintends and has the control of it—is, as to it, in the place of the master."

The subject is further elaborated in the case of Howard *v.* Railroad Co., 26 Fed., 837, in an opinion by Mr. Justice Brewer, then circuit judge of the eighth circuit. The other view is stated very distinctly in the cases of Borgman *v.* Railroad Co , 41 Fed., 667, and Woods *v.* Lindvall, 1 C. C. A., 37, 48 Fed., 62. This last case is much stronger for the plaintiff than the one at bar. The foreman in this case bore no resem-

blance, in the importance and scope of his authority, to that possessed by Murdock in the Woods case, supra. These cases which have been cited serve to illustrate what was in the minds of the courts when the various distinctions as to departments and separate branches of service were suggested. In the Baugh case the engineer and fireman of a locomotive engine running alone on the railroad, and without any train attached, were held to be fellow-servants of the company, so as to preclude the fireman from recovering from the company for injuries caused by the negligence of the engineer.

The meaning of the expression "departmental control" was again, and very lately, discussed in Railroad Co. *v.* Hambly, 154 U. S., 349, 14 Sup. Ct., 983, where it was held, as stated in the headnote, that a common day laborer, in the employ of a railroad company, who, while working for the company, under the orders and direction of a section boss or foreman, on a culvert on the line of the company's road, receives an injury through the neglect of a conductor and an engineer in moving a particular passenger train upon the company's road, is a fellow-servant of such engineer and of such conductor, in such a sense as exempts the railroad company from liability for the injury so inflicted.

The subject is again treated in Railroad Co. *v.* Keegan, 160 U. S., 259; 16 Sup. Ct. 269 (decided at this term), when the men engaged in the service of the railroad company were employed in uncoupling from the rear of trains cars which were to be sent elsewhere and in attaching other cars in their place; and they were held to be fellow-servants, although the force, consisting of five men, was under the orders of a boss who directed the men which cars to uncouple and what cars to couple, and the neglect was alleged to have been the neglect of the boss, by which the injury resulted to one of the men. This court held that they were fellow-servants, and the mere fact that one was under the orders of the other constituted no distinction, and that the general rule of nonliability applied.

These last cases exclude, by their facts and reasoning, the case of a section foreman from the position of a superintendent of a separate and distinct department. They also prove that mere superiority of position is no ground for liability.

This boss of a small gang of 10 or 15 men, engaged in making repairs upon the road, wherever they might be necessary, over a distance of three sections, aiding and assisting the regular gang of workmen upon each section as occasion demanded, was not such a superintendent of a separate department, nor was he in control of such a distinct branch of the work of the master, as would be necessary to render the master liable to a coemployee for his neglect. He was in fact, as well as in law, a fellow-workman. He went with the gang to the place of the work in the morning, stayed there with them during the day, superintended their work, giving directions in regard to it, and returned home with them in the evening, acting as a part of the crew of the hand car upon which they rode. The mere fact, if it be a fact, that he did not actually handle a shovel or a pick, is an unimportant matter. Where more than one man is engaged in doing any particular work, it becomes almost a necessity that one should be boss, and the others subordinate, but both are, nevertheless, fellow-workmen.

If, in approaching the line of separation between a fellow-workman and a superintendent of a particular and separate department, there may be embarrassment in determining the question, this case presents no such difficulty. It is clearly one of fellow-servants. The neglect for which the plaintiff has recovered in this case was the neglect of

Holverson in not taking proper care at the time when he applied the brake to the front car. It was not a neglect of that character which would make the master responsible therefor, because it was not a neglect of a duty which the master owes, as master, to his servant, when he enters his employment.

The charge of the court to the jury in the matter complained of was erroneous, and the judgment must therefor be reversed, and the case remanded, with directions to grant a new trial.

EMPLOYERS' LIABILITY—FELLOW-SERVANTS—*Northern Pacific R. R. Co. v. Charless. 16 Supreme Court Reporter, page 848.*—This was a suit brought against the Northern Pacific Railroad Company by one Charless as plaintiff, to recover damages for injuries received while in the employ of said company. The plaintiff recovered a judgment and the case was carried on appeal to the United States circuit court of appeals for the ninth circuit, which sustained the judgment of the lower court. The case was then brought on writ of error before the United States Supreme Court, which rendered its decision April 13, 1896, and reversed the judgments of the courts below. The opinion of said court, delivered by Mr. Justice Peckham, gives a full statement of the facts in the case, and the following is quoted therefrom:

The plaintiff below was an ordinary day laborer, employed, under a section boss or foreman, to keep a certain portion of the roadbed of the defendant in repair. The foreman had power to employ and discharge men, and to superintend their work, and was himself a workman. He employed the plaintiff, who, with the rest of the men employed in the gang—some four, five, or six—was carried to and from his work, daily, on a hand car worked by the men themselves.

In August, 1886, on the 28th of the month, an accident occurred as the men were on their way to their work. They were using a hand car with what is alleged to have been a defective brake. The foreman had complained of it to the yardmaster a short time before, who had promised a better one. In the meantime, and as a temporary makeshift, the foreman had provided the car with a brake which consisted of a bit of wood, 4 by 4, fastened on the side of the car with a bolt; and the long arm acted as a lever, and pressed the shorter portion of the timber against the wheel. In that way the car had been run for a day or two before the morning of the accident. On that day the plaintiff, with the rest of the men in the gang, and the foreman, started on the hand car to go over a certain portion of the section to inspect the condition of the road. They were running the car very rapidly, under the direction and supervision of the foreman, and had arrived at a narrow cut in the road, around a curve, when they were suddenly confronted with a freight train coming through the cut in the opposite direction. There had been no warning or signal of any kind given by any of the employees on the freight train of its approach, and the plaintiff below knew nothing of the fact that any freight train was expected. Efforts were made to stop the hand car, and, as the speed did not seem to be slackened in time, plaintiff became frightened, and undertook to jump from the front end of the car, when he stumbled over some tools that were on the car

and fell between the rails in front of it. As the hand car approached him he put his foot up against it in order to prevent its running over him; but the impetus of the car was too great, and it ran over and doubled him up and wrenched his spine, causing him great internal injuries. The other hands jumped off the car, removed it from the track, and took the plaintiff out of danger, before the freight train passed by.

The injuries of the plaintiff were of a very serious nature, and his legs became paralyzed and he was rendered a cripple for life. He commenced this action against the defendant below to recover damages on account of the negligence of the agents and servants of the defendant. The negligence claimed consisted in—

(1) The defective brake on the car, which it is alleged was an appliance for the prosecution of the work on the defendant's road, and necessary to be used to enable the employees to perform their duties, and that, as such appliance, it was the duty of the defendant to see that it was reasonably safe and fit for the purpose intended.

(2) The negligence of the foreman in charge of the gang, who directed the speed of the hand car, and ran it at a hazardous rate of speed when he knew that a train coming toward him was expected, while the other members of the gang were ignorant of that fact.

(3) The negligence of the train hands on the approaching train, in giving no signals of their approach around the curve and through the cut, although they were near a public crossing, and some signals were necessary on that account.

Upon the trial evidence was given tending to prove the above facts, and among other things the judge charged the jury as follows:

"I think that the case, when stripped of all the side issues and the incidental questions surrounding it, resolves itself into just this question for this jury to determine: Whether the injury to the plaintiff resulted directly from the negligence of the defendant in needlessly exposing him to the danger of being hurt by a collision between the hand car and the extra freight train at the place where it occurred, or whether the injury was a mere accident, which was the result of one of the ordinary hazards of the employment in which he was engaged; whether it was an ordinary risk of his employment, or whether an extraordinary danger caused by the negligence on the part of the defendant; whether that negligence was a negligence of the foreman in running the hand car too fast up to a point which he knew to be dangerous, and which he did not warn the other men working on the hand car of, so that it was impossible for them, without extreme hazard to their lives, to avoid a collision; or whether the negligence was on the part of the officers in charge of the freight train, in approaching a curve in the cut, which obstructed the train from view, or passing a public crossing, without giving warning by sounding the whistle or engine bell. If, in any of these respects, there was actual neglect on the part of defendant which placed the plaintiff in a situation of extraordinary danger—something clear beyond the ordinary risks of his employment—and his injury was not in any degree owing to his own negligence at the time, the defendant would be liable to damages."

The defendant below excepted to each of the above propositions, as laid down by the learned judge in his charge, and the jury rendered a verdict in favor of the plaintiff, which was affirmed by the circuit court of appeals for the ninth circuit (2 C. C. A., 380, 51 Fed., 562), and the defendant below sued out a writ of error from this court to review the judgment.

Many of the facts surrounding the happening of this accident are similar in their nature to those existing in the case of Railroad Co. *v.* Peterson (just decided), 16 Sup. Ct., 843. The employment of the plaintiff below, the nature of the work, and the powers of the section boss under whom he worked, are substantially the same as those existing in the other case. We may refer to the general principles of the law of master and servant applicable to these facts which are set forth in the opinion of this court in that case, and which we think govern the case at bar, upon those facts.

In regard to the particular allegations of negligence above set forth, it is not necessary, in the view we take of this case, to express any opinion whether the alleged defect in the brake on the hand car rendered it a defective appliance, within the meaning of the law, rendering the master liable for a failure to provide a reasonably safe and proper appliance for the work to be done by his employees.

There were two other propositions submitted to the jury by the learned judge, each of which was, as we think, of a material nature and also clearly erroneous.

1. We think it was error to submit to the jury the question of the negligence of the employees on the extra freight train in failing to give the signals of its approach. This failure, assuming that it constituted negligence, was nothing more than the negligence of coservants of the plaintiff below in performing the duty devolving upon them. The principle which covers the facts of this case was laid down in Randall *v.* Railroad Co., 109 U. S., 478, 3 Sup. Ct., 322, and that case has never been overruled or questioned. Among the latest expressions of opinion of this court in regard to views similar to those stated in the case in 109 U. S. and 3 Sup. Ct., supra, is the case of Railroad Co. *v.* Hambly, 154 U. S., 349, 14 Sup. Ct., 983. It seems to us that the Randall and Hambly cases are conclusive, and necessitate a reversal of this judgment. In the Hambly case it was held that a common day laborer in the employ of a railroad company who, while working for the company, under the orders and direction of a section boss or foreman, on a culvert on the line of the company's road, received an injury through the negligence of a conductor and of an engineer in moving a particular passenger train upon the company's road, was a fellow-servant with such engineer and with such conductor, in such a sense as exempts the railroad company from liability for the injury so inflicted. We are unable to distinguish any difference in principle arising from the facts in these two cases.

The question of the negligence of the hands upon the extra freight train should not have been submitted to the jury as constituting any right to a recovery against the corporation on the ground of such negligence.

2. We also regard it as erroneous to have submitted to the jury the general question whether Kirk, the section foreman, was negligent in running his hand car at too high a speed just prior to the accident. Kirk and the plaintiff below were coemployees of the company, and the neglect of Kirk, if it existed, in driving his hand car too fast (assuming it was in proper condition), was not such negligence as would render the company responsible to Kirk's coemployee. It was not the neglect of any duty which the company, as master, was bound itself to perform. This we have held in the Peterson case, and for the reasons there stated. While it may be assumed that the master would have been liable if a defective brake had been the cause of the accident, yet the defendant below is, under the charge of the judge, permitted to be

made liable by proof of the speed of the hand car, if the jury found that Kirk, the foreman, knew it to be dangerous, and that the accident happened because of that speed, even though it would have happened if the brake had been the regular kind, and in good order. The language of the court does not separate the question of general negligence in running a hand car which was in good order, too fast, from that which might be negligence with reference to running a hand car with a defective brake at the same rate of speed. For using in a negligent manner a defective appliance furnished by the master the latter might be liable if a coemployee were thereby and in consequence thereof injured. As the master furnished the defective appliance it would be no answer to say that it was negligently used. But, on the other hand, the master would not be responsible for the negligent use of a proper appliance. From the language used by the court, the company might have been held liable if Kirk were running the hand car at a dangerous rate of speed, although the jury found the brake actually used to have been sufficient. A dangerous rate of speed was therefore held to be negligence. That neglect, we hold, the company was not responsible for.

Upon the other question of the negligence of the employees on the freight train, the error in the charge is not rendered harmless by any explanation given by the learned judge. The difficulty remains uncured. The jury might have found from the evidence that this hand car, while going at the rate of speed stated, could have been stopped with the extemporized brake in time to prevent any danger of a collision, in case the proper signals had been given by the hands on the freight train, but that the accident resulted from their failure to give those signals, and that such failure was negligence on their part. The verdict may have been based upon such negligence. We hold the company was not liable for the negligence of the hands on the freight train in failing to give proper signals.

The judgment entered upon the verdict of the jury must be reversed and the cause remanded, with instructions to grant a new trial.

SEAMEN—EXTRA WAGES—*The Potomac—Niagara Falls Paper Co. v. Crouckett et al. 72 Federal Reporter, page 535.*—This case was a libel, brought in the district court of the United States for the southern district of New York, by James Crouckett and James Hanley, against the barge Potomac (Niagara Falls Paper Company, claimant), to recover extra wages. The district court made a decree in favor of libelants, and the claimant appealed to the United States circuit court of appeals, second circuit. Said court rendered its decision February 18, 1896, and reversed the decree of the lower court. Its opinion, delivered by Circuit Judge Shipman, and containing a statement of the facts in the case, is given below:

The libelants shipped, in September, 1894, on board the barge *Potomac*, one as mate and the other as seaman, and each upon wages by the month. The barge left Buffalo in September, bound for Parry Sound, in Canada. On her return trip, she was laden with lumber below and on deck, consigned to Tonawanda, N. Y., and left Parry Sound on the morning of September 23, in tow of the tug *Seguine*. The next

morning she encountered a violent gale, and after passing Cove Island light the towline parted, the barge drifted, shipped heavy seas, became waterlogged, lost part of her deck load, dropped anchor in the night near Flower Pot Island, and stayed there till morning, when the tug came and towed her to a small harbor in Canada called "Tubmerry," between 1 and 2 miles from the larger Tubmerry port. The vessel was tied up near the lighthouse, where there was a hamlet of 8 families, containing about 75 people. In order to free the barge from water, it was necessary to remove the lumber from the deck, put on steam pumps, box them in, and afterwards reload the cargo. The captain hired men from the shore to assist in this work, but the sailors exacted extra compensation before they would touch the cargo for the purpose of unloading, and demanded and received from the captain a promise to pay extra wages of 30 cents per hour. The barge was placed in proper condition, and was towed to Tonawanda. The extra compensation of each of the libelants amounted to $10.50. The owners paid the extra amount to all the sailors except the two libelants. There was no apparent reason for this discrimination. To recover the extra wages this libel was brought.

The district judge in deciding in favor of the libelants was undoubtedly influenced by the seeming unfairness of the claimants in paying a part only of the men in accordance with the promise of the captain. He furthermore says:

"If I thought that a decree for the libelants involved a departure from the old and salutary rule that seamen must not expect extra compensation for services rendered in their capacity as seamen, no matter how arduous or meritorious they may be, I should dismiss the libel. It would lead to gross insubordination, and increase the difficulties and dangers of navigation immeasurably if the court should sanction the idea that a seaman may refuse to obey the master's order on the ground that the work he is directed to perform is 'extra' and entitled him to additional compensation."

He thought that the facts took the case out of the general rule, because the *Potomac* was in port at the time in question, and says:

"The work was partly on the vessel and partly on shore and consisted in unloading and reloading a part of her cargo."

No question is made as to the general rule which the district judge stated, or that seamen are bound, without extra compensation, to render extra labor and services to save the vessel and cargo in case of wreck or impending calamity, and that a contract for extra pay "made when the ship is in distress, or obtained by any unfair practices or advantage taken by the seamen, is wholly void." (Curt. Merch. Seam., 28.) In this case the barge had become disabled, and was taken to a harbor of refuge, so as to be enabled to prosecute her voyage. She was compelled by stress of weather to stop at Tubmerry, in order to gain ability to go to her place of destination. We think that the district judge was in error in considering that, at the time in question, the barge was in port. She was neither in her port of destination, nor in a port where the voyage was at an end. She was in a temporary harbor of refuge, where the duties of seamen in relation to the care of her cargo and the safety of the vessel still continued. The unloading of the vessel was necessary, in order to enable her to be freed from water, and to complete her trip and earn her freight; and in her distress this service was a part of the sailors' duty. It follows that the contract was void.

The decree of the district court is reversed, without costs, and the cause is remanded to the district court, with instructions to dismiss the libel, without costs.

SEC. 3. Said chapter [shall] be further amended by adding thereto as section 7 the following:

SECTION 7. The commissioner of the bureau of labor shall have the power upon the complaint of two or more persons, or upon his failure to otherwise obtain information in accordance with the provisions of this act, to enter any factory or mill, workshop, mine, store, business house, public or private work, when the same is open or in operation, upon a request being made in writing, for the purpose of gathering facts and statistics such as are contemplated by this act, and to examine into the methods of protection from danger to employees, and the sanitary conditions in and around such buildings and places, and make a record thereof; and any owner or occupant of such factory or mill, workshop, mine, store, business house, public or private work, or any agent or employee of such owner or occupant who shall refuse to allow any officer or employee of said bureau to so enter, or who shall hinder him, or in any way deter him from collecting information, shall be deemed guilty of a misdemeanor, and upon conviction thereof before any court of competent jurisdiction, shall be punished by a fine of not exceeding $100 and costs of prosecution or by imprisonment in the county jail not exceeding thirty days.

SEC. 4. Said chapter [shall] be further amended by adding thereto as section 8 the following:

SECTION 8. The expressions "factory," "mill," "workshop," "mine," "store," "business house," and "public or private work," as used in this act, shall be construed to mean any factory, mill, workshop, mine, store, business house, public or private work, where five or more wage earners are employed for a certain stipulated compensation.

SEC. 5. Said chapter [shall] be further amended by adding thereto as section 9 the following:

SECTION 9. It shall be the duty of every owner, operator, or manager of every factory, mill, workshop, mine, store, business house, public or private work, or any other establishment where labor is employed as herein provided, to make to the bureau, upon blanks furnished by said bureau, such reports and returns as said bureau may require for the purpose of compiling such labor statistics as are contemplated by this act; and the owner, operator, or business manager shall make such reports or returns within sixty days from the receipt of blanks furnished by the commissioner, and shall certify under oath to the correctness of the same. Any owner, operator, or manager of such factory, mill, workshop, mine, store, business house, public or private work, as herein stated who shall neglect or refuse to furnish to the commissioner of labor such reports or returns as may be required by the following blank shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding $100 and cost of prosecution, or imprisoned in the county jail not exceeding thirty days.

BLANK.

Name of firm or corporation..... Number of hands employed during year ending December 31,.....; males.....; females.....; apprentices..... Total amount of wages paid during the year ending December 31,.....$..... Total amount of wages paid previous year.....$.... Any general increase or reduction of wages during the past year? If so, what per cent of increase or reduction?..... Cause of increase or reduction..... Any increase or decrease of business during past year, $.... What means are provided for the escape of employees in case of fire?..... What measures are taken to prevent accidents to employees from machinery?..... How are buildings ventilated?..... Are separate water-closets and wash rooms provided for the different sexes?..... Number of weeks during past year business was run on full time with full force,..... Number of weeks during past year business was run on short time or with reduced force,..... Number of weeks during past year business was suspended,..... Number of strikes during year ending December 31,.... Number involved,.....; alleged cause,.....; result,.....; how many days did strike continue, and what was loss of wages in consequence thereof?.....; was any property destroyed, and if so its value?.....

SEC. 6. Said chapter [shall] be further amended by adding thereto as section 10 the following:

SECTION 10. In the reports of the commissioner no use shall be made of names of individuals, firms or corporations supplying the information called for by sections 5 and 6 of this act, such information being deemed confidential and not for the purpose of disclosing personal affairs, and any officer or employee of the bureau of labor statistics violating this provision shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined in a sum not exceeding five hundred dollars and costs of prosecution, or by imprisonment in the county jail not exceeding one year.

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ACT

CHAPTER 133.—*Pa*

SECTION 1. All corporations incorpo
engaged in mining and shipping coal i
each and all their employees their wag
that is to say, all wages earned on an
not later than upon the 25th day of sa
to the end of each month, shall be paid
month, unless said 25th day or 10th da
holiday, in which case the time for pa

SEC. 2. Any such corporation, willfu
at the times hereinbefore specified, o
employees beyond said times, shall be
indictment and conviction thereof sha
in the discretion of the court.

SEC. 3. This act shall take effect on

Approved April 4th, 1896.

CHAPTER 147.—*S*

SECTION 1. The following section is
Maryland Code of Public General La
fifty-one, and to be designated as "Sec

151 A. All proprietors or owners of
store, notions, millinery or any other
for the purpose of serving the public
provide a chair or stool for each one
during such period as they are not acti
they may have an opportunity to rest.

SEC. 2. Any owner or proprietor, as
neglect to obey or observe the provisio
committed a misdemeanor, and shall,
not less than ten dollars, and not excee
and in the event said owner or proprie
shall be subjected to a fine at the ra

reasonable means of knowledge, by purchase, contract or otherwise, directly or indirectly, cause or permit any garments, or such other articles as aforesaid, to be manufactured or made up, in whole or in part, or any work to be done thereupon within this State, and in place or under circumstances involving danger to the public health, the said individual or corporation, upon conviction in any court of competent jurisdiction, shall be fined not less than ten dollars or more than one hundred dollars for each garment manufactured, made up or worked upon.

SEC. 2. This act shall take effect from the date of its passage.

Approved April 4, 1896.

MASSACHUSETTS.

ACTS OF 1896.

CHAPTER 241.—*Weekly payment of wages.*

SECTION 1. No person or partnership engaged in this Commonwealth in manufacturing business and having more than twenty-five employees shall, by a special contract with persons in his or its employ or by any other means, exempt himself or itself from the provisions of chapter four hundred and thirty-eight of the acts of the year eighteen hundred and ninety-five relative to the weekly payment of wages.

SEC. 2. Whoever violates the provisions of this act shall be punished by a fine not exceeding fifty dollars and not less than ten dollars.

SEC. 3. This act shall take effect upon its passage.

Approved April 6, 1896.

CHAPTER 334.—*Weekly payment of wages.*

SECTION 1. Section one of chapter four hundred and thirty-eight of the acts of the year eighteen hundred and ninety-five is hereby amended by inserting after the word "to," in the fourth line, the words:—all contractors and to,—also by inserting after the word "such," in the eighth line, the word:—contractors,—so that the section as amended will read as follows:—*Section 1.* Sections fifty-one to fifty-four, inclusive, of chapter five hundred and eight of the acts of the year eighteen hundred and ninety-four, relative to the weekly payment of wages by corporations, shall apply to all contractors and to any person or partnership engaged in this Commonwealth in any manufacturing business and having more than twenty-five employees. And the word "corporation," as used in said sections, shall include such contractors, persons and partnerships.

SEC. 2. This act shall take effect upon its passage.

Approved April 28, 1896.

CHAPTER 343.—*Traversing machinery in cotton factories.*

SECTION 1. No traversing carriage of any self-acting mule in any cotton factory shall be allowed to travel within twelve inches of any pillar, column, pier or fixed structure: *Provided*, That this section shall only apply to factories erected after the passage of this act.

SEC. 2. If the provisions of this act are violated in any such cotton factory the owner of such factory shall be punished by a fine of not less than twenty dollars nor more than fifty dollars for each offense.

Approved April 28, 1896.

CHAPTER 444.—*Suits for wages.*

In actions of contract for the recovery of money due for manual labor two or more persons may join in one action against the same defendant or defendants when the claim of no one of such persons exceeds the sum of twenty dollars, although the claims of such persons are not joint; and each of such persons so joining may recover the sum found to be due to him personally. The claim of each person so joining shall be stated in a separate count in the declaration, and the court may make such order for the trial of issues as shall be found most convenient and may enter separate judgments and issue one or more executions, and may make such order concerning costs as in its opinion justice may require.

Approved May 28, 1896.

CHAPTER 449.—*Employment of laborers by cities.*

SECTION 1. So much of chapter three hundred and twenty of the acts of the year eighteen hundred and eighty-four and the amendments thereto as relates to the employment of laborers by cities, and that portion of the civil service rules of the Commonwealth and the cities thereof as authorized by said acts and designated

shall require the giving of such preference

SEC 2. Any contractor who knowingly and willful this act shall be fined not more than one hundred doll

SEC. 3. This act shall not take effect until January dred and ninety-seven.

Approved June 5, 1896.

CHAPTER 546.—*Examination, etc., of stationary*

SECTION 1. It shall be unlawful for any person to ha steam boiler or engine in this Commonwealth (except lo boilers in private residences, boilers under the jurisd boilers used for agricultural purposes exclusively, boi power, and boilers used for heating purposes only, prov by the chief of the district police limiting the pressure the square inch), unless he holds a license as hereinaft unlawful for any owner or user of any steam boiler or en excepted) to operate or cause to be operated a steam boi more than one week, without a duly licensed engineer *vided, however*, That every person who has been employ engineer in this Commonwealth for the period of five yea of this act, and who files with his application a certific accompanied by a statement from his employer or emplo shall be entitled to a license without further examinatio

SEC. 2. Any person desiring to act as an engineer or fi tion for a license to so act to an examiner of engineers, u by the examiner, and if upon examination the applica competent, a license shall be granted to him. Such lic for three years, unless for a sufficient cause, affecting t petency of the person licensed, and after a hearing, the s the said license unless so revoked shall at the end of said an examiner of engineers, upon application, and withou

SEC. 3. All applications for licenses shall be accompa and a like sum shall be paid for all renewals of licenses accounted for by the examiners to the chief of the distri the same monthly to the treasurer of the Commonwealth

SEC. 4. The members of the boiler inspection depart shall act as examiners, and shall enforce the provisions o of the Commonwealth is authorized to appoint two add examiners of engineers, under this act, at an annual dollars and their actual traveling and necessary

SEC. 8. All acts or parts of acts inconsistent herewith are hereby repealed. The provisions of this act, so far as they are the same as those of chapter four hundred and seventy-one of the acts of the year eighteen hundred and ninety-five, shall be construed as a continuation of that chapter and not as new enactments.

SEC. 9. This act shall take effect upon its passage.

Approved June 9, 1896.

MISSISSIPPI.

ACTS OF 1896.

CHAPTER 86.—*Liability of employers for death of employees.*

SECTION 1. Section 663 of the Annotated Code of 1892 [shall] be so amended as to read as follows: Whenever the death of any person shall be caused by any real, wrongful or negligent act or omission, or by such unsafe machinery, ways or appliances, as would, if death had not ensued, have entitled the party injured or damaged thereby to maintain an action and recover damages in respect thereof, and such deceased person shall have left a widow or children, or both, or husband or father or mother or sister or brother, the person or corporation, or both, that would have been liable if death had not ensued, and the representative of such person, shall be liable for damages, notwithstanding the death, and the fact that death is instantaneous shall, in no case, affect the right of recovery. The action for such damages may be brought in the name of the widow for the death of the husband, or by the husband for the death of his wife, or by a parent for the death of a child, or in the name of a child for the death of a parent, or by a brother for the death of a sister, or by a sister for the death of a brother, or by a sister for the death of a sister, or a brother for the death of a brother, or all parties interested may join in the suit, and there shall be but one suit for the same death, which suit shall inure to the benefit of all parties concerned, but the determination of such suit shall not bar another action unless it be decided upon its merits. In such action the party or parties suing shall recover such damages as the jury may assess, taking into consideration all damages of every kind to the decedent and all damages of every kind to any and all parties interested in the suit. Executors or administrators shall not sue for damages for injuries causing death except as below provided; but every such action shall be commenced within one year after the death of such deceased person.

SEC. 2. This act shall apply to all personal injuries of servants or employees received in the service or business of the master or employer, where such injuries result in death.

SEC. 3. Damages recovered under the provisions of this act shall not be subject to the payment of the debts or liabilities of the deceased, and such damages shall be distributed as follows: Damages for the injury and death of a married man shall be equally distributed to his wife and children, and if he has no children all shall go to his wife; damages for the injury and death of a married woman shall be equally distributed to her husband and children, and if she has no children all shall go to her husband; if the deceased has no husband nor wife, the damages shall be distributed equally to the children; if the deceased has no husband nor wife nor children the damages shall be distributed equally to the father, mother, brothers and sisters or to such of them as the deceased may have living at his or her death. If the deceased leave neither husband or wife or children or father or mother or sister or brother, then the damages shall go to the legal representative subject to debts and general distribution, and the executor may sue for and recover such damages on the same terms as are prescribed for recovery by the next of kin in section 1 of this act, and the fact that deceased was instantly killed shall not affect the right of the legal representative to recover.

SEC. 4. This act shall take effect immediately.

Approved March 23, 1896.

CHAPTER 87.—*Liability of corporations for injuries of employees.*

SECTION 1. Section 3559 of the Annotated Code of 1892 [shall] be amended so that the same shall read as follows, to wit: Every employee of any corporation shall have the same rights and remedies for an injury suffered by him from the act or omission of the corporation or its employees, as are allowed by [to?] other persons not employees, where the injury results from the negligence of a superior agent or officer, or of a person having the right to control or direct the services of the party injured, and also when the injury results from the negligence of a fellow-servant engaged in another department of labor from that of the party injured, or of a fellow-servant on another train of cars, or one engaged about a different piece of work. Knowledge by an employee injured of the defective or unsafe character or condition of any

his legal personal representative of any right or re
Approved March 11, 1896.

PAGE 186.—*Factories and workshops—Blow*

SECTION 1. All persons, companies or corporation shop, where emery wheels or emery belts of any d emery, leather, leather covered, felt, canvas, linen, rolled or coated with emery or corundum, or cotton w the same with blowers, or similar apparatus, which under such wheels or belts in such manner as to pr the same from the particles of dust produced and ca the dust arising from, or thrown off by such whe directly to the outside of the building or to some r and confine such dust; *Provided, however*, Small eme rarily for tool grinding, that do not create dust inspector of workshops and factories to be injurious from the conditions of this act.

SEC. 2. Any such person or persons and the manag poration who shall have the charge or managemen who shall fail to comply with the provisions of this misdemeanor, and upon conviction thereof before any shall be punished by a fine of fifty dollars and not for each offense, or imprisonment in the county ja exceeding ninety days, or both such fine and impris court.

SEC. 3. It shall be the duty of the inspector of wo the provisions of the above act, and to prosecute all v competent jurisdiction, and all fines shall be collecte tion is had, the same to be turned over to the chief tories, he to pay same to treasurer of State to be fund.

SEC. 4. In all prosecutions brought by or under t workshops and factories for the violation of the abo to give security for costs, but in all cases where the victed and found to be indigent, then the costs to be county in which proceedings are brought, the sa misdemeanors are paid

SEC. 2. Each such room or apartment used for the purposes aforesaid, shall be regarder [regarded] as a workshop or factory, and shall be separate from and have no door, window or other opening into any living or sleeping room of any tenement or dwelling, and no such workshop or factory shall be used at any time for living or sleeping purposes, and shall contain no bed, bedding, cooking or other utensils, excepting what is required to carry on the work therein; and every such shop or factory shall have an entrance from the outside direct, and if above the first floor shall have a separate and distinct stairway leading thereto, and every such workshop or factory shall be well and sufficiently lighted, heated and ventilated by ordinary, or, if necessary, by mechanical appliance, and shall provide for each person employed therein, no less than 250 cubic feet of air space in day time, and 400 cubic feet at night, and shall have suitable closet arrangements for each sex employed therein, as follows: Where there are ten or more persons, and three or more to the number of twenty, are of either sex, a separate and distinct water-closet, either inside the building, with adequate plumbing connections, or on the outside at least twenty feet from the building, shall be provided for each sex; when the number employed is more than twenty-five of either sex, there shall be provided an additional water-closet for such sex up to the number of fifty persons, and above that number in the same ratio, and all such closets shall be kept strictly and exclusively for the use of the employees and employer or employers of such workshop or factory; *Provided*, That where more than one room is used under the direction of one employer, all such rooms are to be regarded as one shop, or factory, and every such workshop or factory shall be kept in a clean and wholesome condition, all stairways and the premises within a radius of thirty feet shall be kept clean, and closets shall be regularly disinfected and supplied with disinfectants, and the inspector of factories or his assistants may require all necessary changes, or any process of cleaning, painting or whitewashing which he may deem essential to assure absolute freedom from obnoxious odor, filth, vermin, decaying matter or any condition liable to impair health or breed infectious or contagious diseases; he shall prevent the operation of such shops and factories that do not conform to the provisions of this act, and cause the arrest and prosecution of the person or persons operating the same.

SEC. 3. No person, for himself or for any other person, firm or corporation, shall give out work to or contract with any other person to perform such work necessary to make such goods mentioned in section one, after having received notice from the inspector of factories or his assistants, that said latter person has not complied with the provisions of section two of this act which notice shall remain in force, until said person has complied with this law, of which notice must be given to the employer by the inspector of factories or his assistants.

SEC. 4. Every such person, firm or corporation heretofore mentioned shall obtain and keep a record of all persons to whom work is given out or contracted for, including their names and addresses which record shall be opened to inspection of the State inspector of workshops and factories, when called for.

SEC. 5. No person, firm or corporation shall receive, handle, or convey to others, or sell, hold in stock or expose for sale any goods mentioned in section one, unless made under the sanitary conditions provided for and prescribed in this act; but this act shall not include the making of garments or other goods by any person for another by personal order, and when received for wear or use direct from the maker's hands, and all violations of the provisions of this act shall be prosecuted by the inspector with the advice and consent of the chief inspector of workshops and factories.

SEC. 6. Any person, firm or corporation who shall violate any of the provisions of this act shall, upon conviction thereof, be fined in any sum not less than fifty dollars nor more than one hundred dollars for each offense, or imprisoned not less than thirty nor more than sixty days or both, at the option of the court, such fine to be collected by the court in which conviction is had and turned over to the chief inspector of workshops and factories, and by him to be paid into the State treasury to be credited to the general revenue fund; and in all prosecutions brought by or under the direction of the inspector of workshops and factories for the violation of this act, he shall not be held to give security for costs, or adjudged to pay any costs, but in all cases where the accused be acquitted or is found to be indigent, the costs shall be paid out of the county treasury of the county in which proceedings are brought, the same as the costs in all other cases of misdemeanor.

SEC. 7. This act shall take effect and be in force on and after its passage.

Passed April 27, 1896.

PAGE 324.—*State board of arbitration, etc.*

SECTION 1. Sections 4, 13, and 14 of said above entitled act [act passed March 14, 1893, page 83, acts of 1893] shall be amended so as to read as follows:

SEC. 4. Whenever any controversy or difference not involving questions which may be the subject of a suit or action in any court of the State exists between an

of several employers so cooperating. And wh
several counties the expenses incurred under
treasury shall be apportioned among and paid
deem equitable and may direct.

SEC. 13. Whenever it is made to appear to a
that a strike or lockout is seriously threaten
vicinity, he shall at once notify the State boa
location of the employer, the nature of the tr
involved, so far as his information will enable h
to the knowledge of the State board, either by s
or lockout is seriously threatened, or has actua
an employer and his present or past employees,
to the occurrence of the strike or lockout, was
persons in the same general line of business in
State board to put itself in communication, as
and employees.

SEC. 14. It shall be the duty of the State bo
endeavor, by mediation or conciliation, to aff
between them, or, if that seems impracticable, to
the matters in dispute to a local board of arbitr
vided, or to the State board; and said board m
gate the cause or causes of such controversy ar
mainly responsible or blameworthy for the exis
and may make and publish a report finding such
responsibility or blame. The board shall have
purposes as are given it by section 9 of this ac
nor an arbitration be had because of the opposit
troversy, such investigation and publication shal
be had. And the expense of any publication ur
paid as provided therein for payment of fees.

SECTION 2. Said [original] sections 4, 13, and
take effect on its passage.

Passed April 27, 1896.

VIRGINIA.

ACTS OF 1895-9

CHAPTER 286.—*Assignment, etc., of claims to avoid wages, unlawful.*

SECTION 1. It shall be unlawful for any person
tuted, proceedings in his own name, or in the nam
or transfer, either for or without value, any claim

SEC. 2. The amount recovered in such action shall stand on the same footing with the wages of the plaintiff under section thirty-six hundred and fifty-two of the Code, and shall also be exempt and free from any and all liability of the plaintiff to the defendant in the way of set-off or otherwise.

SEC. 3. The fact that the payment of a claim or debt against any person entitled to the exemption provided for by section thirty-six hundred and fifty-two of the Code has been enforced by legal proceedings in some State other than the State of Virginia, in such manner as to deprive such person to any extent of the benefit of such exemption, shall be prima facie evidence that any resident of this State, who may at any time have been owner or holder of said claim or debt, has violated this law.

SEC. 4. This act shall be in force from the date of its passage.

Approved February 11, 1896.

CHAPTER 351.—*Protection of debts due laborers on buildings, etc.*

SECTION 1. No assignment or transfer of any debt, or any part thereof, due or to become due to a general contractor by the owner for the construction, erection or repairing of any building, structure, or railroad for such owner, shall be valid or enforceable in any court of law or equity by any legal process, or in any other manner, by the assignee of any such debt, unless and until the claims of all subcontractors, supply men and laborers against such general contractor for labor performed and materials furnished in and about the construction, erection and repairing of such building, structure or railroad shall have been satisfied; *Provided*, That if such subcontractors, supply men and laborers shall give their assent in writing to such assignment, it shall be thereby made valid as to them, but the payment or appropriation of such assignment by the owner without such assent in writing shall not protect such owner from the demands of such subcontractors, supply men and laborers to the extent of such assignment.

SEC. 2. No debt or demand, or any part thereof, due or to become due by the owner of any building, structure or railroad to a general contractor for the construction, erection or repairing of such building, structure or railroad, shall be subject to the payment of any debt or the lien of any judgment, writ of fieri facias or any garnishee proceeding obtained or sued out upon any debt due such general contractor which shall have been contracted in any other manner or for any other purpose than in the construction, erection or repairing of such building, structure or railroad for such owner unless and until the claims due by such general contractor to all subcontractors, supply men and laborers for materials furnished and labor performed in and about the construction, erection or repairing of such building, structure or railroad shall have been paid.

SEC. 3. All acts and parts of acts in conflict with this act are hereby repealed.

SEC. 4. This act shall be in force from its passage.

Approved February 17, 1896.

NEW YORK CITY.—November 14, 1896. Contract with D. H. Hayes, Chicago, Ill., for stone and brick work, roof covering, interior finish, etc., of appraiser's warehouse, $322,500. Work to be completed within twelve months.

RICHMOND, KY.—November 25, 1896. Contract with the Pittsburg Heating Supply Company, Pittsburg, Pa., for low-pressure, return-circulation, steam heating, and ventilating apparatus for post office, $3,465. Work to be completed within sixty days.

SAGINAW, MICH.—November 25, 1896. Contract with Charles W. Gindele, Chicago, Ill., for erection and completion of post office, except heating apparatus, $70,900. Work to be completed within twelve months.

NEWBURG, N. Y.—November 25, 1896. Contract with Sproul & McGurrin, Grand Rapids, Mich., for low-pressure, return-circulation, steam heating, and ventilating apparatus for post office, $2,344. Work to be completed within sixty working days.

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BULLETIN

OF THE

DEPARTMENT OF LABOR.

No. 7—NOVEMBER, 1896.

ISSUED EVERY OTHER MONTH.

EDITED BY

CARROLL D. WRIGHT,
COMMISSIONER.

OREN W. WEAVER,
CHIEF CLERK.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1896.

REPORTS PUBLISHED BY THE DEPARTMENT OF LABOR

ANNUAL.

1886.	First,	Industrial Depressions	[illegible]
1887.	Second,	Convict Labor	[illegible]
1888.	Third,	Strikes and Lockouts (Jan. 1, 1881, to Dec. 31, 1886)	[illegible]
1889.	Fourth,	Working Women in Large Cities	[illegible]
1890.	Fifth,	Railroad Labor	[illegible]
1891.	Sixth,	Cost of Production: Iron, Steel, Coal, etc.	[illegible]
1892.	Seventh,	Cost of Production: The Textiles and Glass (2 vols.)	[illegible]
1893.	Eighth,	Industrial Education	[illegible]
1894.	Ninth,	Building and Loan Associations	[illegible]
1895.	Tenth,	Strikes and Lockouts (Jan. 1, '87, to June 30, '94) (2 vols.)	[illegible]

SPECIAL.

1889.	First,	Marriage and Divorce	[illegible]
1892.	Second,	Labor Laws of the United States (Second edition, revised, 1896)	[illegible]
1893.	Third,	Analysis and Index of all Reports Issued by Bureaus of Labor Statistics in the United States prior to Nov. 1, '92.	[illegible]
1893.	Fourth,	Compulsory Insurance in Germany, etc.	[illegible]
1893.	Fifth,	The Gothemburg System of Liquor Traffic	[illegible]
1893.	Sixth,	The Phosphate Industry of the United States (with maps and illustrations)	[illegible]
1894.	Seventh,	The Slums of Baltimore, Chicago, New York, and Philadelphia	[illegible]
1895.	Eighth,	The Housing of the Working People (with plans and illustrations)	[illegible]